Twelfth Annual Report of the COMMISSIONER of PARKS and BOULEVARDS

City of
DETROIT
MICHIGAN

FROM JULY 1
1900
TO JUNE 30
1901

R. E. BOLGER, *Commissioner.*
M. P. HURLBUT, *Secretary.*
W. D. HEALY, *Gen'l Sup't.*

DETROIT:
RAYNOR & TAYLOR,
1901

A GLIMPSE

OF

BELLE ISLE

WORK OF DEEPENING. SKATING. SUMMER.

LAKE TAKOMA, BELLE ISLE.

PLEASURE GROUNDS

It is the instinct of man to turn to Nature and the wondrous miracles wrought by her, from the time of the springing of the grass, the budding of the trees and the unfolding of the flowers, to the melancholy days when the beauties of the season die in the sombre hues of the declining year.

There is no one so hardened, no one so mercenary, no one so wedded to the seductions of fortune-getting, that he does not long for the season of Nature's beauty, for the enjoyment afforded by her trees, her shrubs, her flowers, the fragrance of her foliage, the breezes wafted over the cooling waters, her marvelous blending of colors, the singing of wild birds, and that incomparable intermingling of delightful pleasure with all that is best and most ennobling in our common humanity. It is to meet this craving for the primitive charms of Nature, which mean health, recreation, a temporary release from the cares of life and renewed strength for again meeting them, that cities spend so much for the parks that are the delightful pleasure ground of their people. We have at our very doors the woodland, the green sward of the meadows, the driveways arched with interlacing branches, the shaded nooks and the running streams. All that is wrought by the necromancy of Nature is enhanced by the best that art and experience can contribute. They invite to rest the soul and body. They are all the lovelier and more entrancing as you contrast them with the heat, the din and the nerve-racking life in a great city, where the walled streets seem as prisons and the atmosphere on a hot summer day is that of an inferno. To step from this into the cool and restful quiet of our Island Park—the envy of the world—is an emancipation and an inspiration. It brings to all the soothing touch of Nature in her happiest mood and most delightful adornment. We have within our own city limits and as our own rest, a spot so fascinating to every sense of beauty that thousands travel annually half across the continent to see what is ours for daily enjoyment. The parks are for you. Set apart a time to be idle and enjoy the beauties of Nature.

PARK COMMISSIONERS

1871-1901

Park Commissioners Under the Act of 1871.

G. V. N. LOTHROP, ROBERT P. TOMS, A. SMITH BAGG,
JOHN J. BAGLEY, MERRILL I. MILLS, WM. A. BUTLER,
CHAS. I. WALKER, CHAS. C. TROWBRIDGE.

Park Commissioners Appointed in 1879 by Mayor Langdon.

THEO. CHAPOTON, W. K. MUIR, JOHN PRIDGEON, JR.
AUGUST GOEBEL, E. F. CONELY, W. B. MORAN.

Board of Belle Isle Park Commissioners Organized September 6, 1881.

NAMES.	Appointed.	Expiration of Terms.	REMARKS.
MERRILL I. MILLS	Aug. 30, 1881	Aug. 31, 1882	
AUG. MARXHAUSEN	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
WM. A. MOORE	Aug. 30, 1881	Aug. 31, 1884	Re-appointed.
JAS. MCMILLAN	Aug. 30, 1881	Aug. 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
WM. B. MORAN	Sept. 1, 1882	Aug. 31, 1886	
AUG. MARXHAUSEN	Sept, 1, 1883	Aug. 31, 1887	
DEXTER M. FERRY	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term of Jas. McMillan.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
WM. A. MOORE	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
JOS. A. MARSH	Jan. 22, 1886	Aug. 31, 1889	
ELLIOTT T. SLOCUM	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.
FRED. L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888. F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug. 1, 1888	Aug. 31 1890	Filling unexpired term of F. L. Seitz, resigned.
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept. 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, abrogating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional Commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS and WM. B. MORAN, who were succeeded by the following

Commissioners of Parks and Boulevards:

NAMES.	Appointed.	Expiration of Term.	REMARKS.
GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891.
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTONE, JR.	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21, 1889	May 31, 1893	
FRED. A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May 3, 1892	May 31, 1894	Resigned Nov. 15, 1892. James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED GUENTHER	August, 1892	May 31, 1895	
WM. LIVINGSTONE, JR.	May, 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug. Marxhausen appointed to fill unexpired term.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
AUG. MARXHAUSEN	Nov. 28, 1893	May 31, 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingstone, Jr.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5, 1894	May 31, 1898	Resigned March 1, 1896. A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1896	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
JAS. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VANLEYEN	June 6, 1898	May 31, 1902.	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28, 1898	May 31, 1901	Resigned April 11, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term of A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903.	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904.	

Under the act of May 4, 1901 abrogating the Commissioners of Parks and Boulevards, The Commissioner of Parks and Boulevards was created.

Commissioner of Parks and Boulevards:

NAME.	Appointed.	Term.
R. E. BOLGER	May 4. 1901	June 1, 1901 to May 31, 1905

PARK COMMISSION PONY PHAETON IN BICENTENARY FLORAL PARADE.

COMMISSIONER OF PARKS and BOULEVARDS

CITY OF DETROIT, July 1, 1901.

To the Honorable, the Common Council:

GENTLEMEN:—In accordance with an Act of the Legislature creating the Park and Boulevard Commission, it is provided that a report shall be made to your honorable body. Accordingly, this, the twelfth annual report, for the fiscal year commencing July 1, 1900, and ending June 30, 1901, is submitted for your consideration, containing, together with the general synopsis of the work accomplished, the statistics and detailed accounts by the Secretary of the receipts and disbursements. Also a more comprehensive summary of the work done in the several departments, both as to improvements and maintenance, is set forth in General Superintendent, R. J. Coryell's report from July 1, 1900, to May 31, 1901, who resigned at this time.

Membership of the Commission.

The Board for the first eleven months of the fiscal year was composed of four members, in accordance with the Act creating the Commissioners of Parks and Boulevards, as follows:

A. W. BLAIN, *President.*
EDWARD C. VAN LEYEN, *Vice-President.*
WM. GEIST,
P. H. A. BALSLEY.

An Act of the Legislature approved May 4, 1901, abolished the Commissioners of Parks and Boulevards and created a one-man Commission, known as the Commissioner of Parks and Boulevards.

The Common Council under the act appointed Robert E. Bolger, Commissioner on May 4, 1901, to serve for four years from June 1, 1901, at a salary of $5,000 per year, who having qualified, entered upon his duties on June 1, 1901.

Engineering Department: There has been done in this department work of great value in collecting data of the underground water system, sewerage, etc. and recording the same in the Park Board office for future reference. Thus far, there have been completed, or practically so, two large volumes of sectional maps of Belle Isle Park and one of the Boulevard. These maps show the location of all improvements both above and below the ground.

NEW PARK PHAETON—BELLE ISLE.

Barns, Horses and Vehicles: This department is a most important one to the park and boulevard system. At the commencement of the fiscal year, forty-two horses were owned, twenty-five were purchased during the year for $3,128.25. Fifteen disabled horses were sold for $905.00 and seven died from various causes, leaving forty-five horses in possession of the commission on June 30, 1901. The year's maintenance of this department was $15,318.43.

The records show that the horses worked 16,032 days and figuring on a basis of hiring the teaming done, each horse

NEW GREEN-HOUSES—BELLE ISLE.

would cost $1.00 per day or a total of $16,032, showing a profit of $713.57 to the city over and above the cost of care and repair of vehicles; thus it is evident that it is cheaper to own than to hire horses.

Greenhouse Department: The old range of greenhouses has outlived its usefulness. The houses being constructed of wood have decayed to that extent that new ranges were an absolute necessity. An appropriation in the past two years amounting to $12.000 having been allowed, a service building and three of the proposed ranges have been

about completed at a cost of $11,059.52. There are yet to build seven ranges in order to complete the greeenhouses as proposed, and when completed, the commission will be able to supply all the plants required for the park system of a much

STEAM ROAD ROLLER—BELLE ISLE.

more vigorous quality than ever before and at a much less cost. The new ranges are of permanent character, being built of brick and steel framework.

Carpentry Department: In this department is done the repairing of buildings for the park system, which is no small item, as many of the structures are of wood and fast decaying. In addition to this, the vehicles, swings, settees, rustic work, etc. are kept in repair, beside building new swings and whatever may be required.

Steam Road Roller: A six-ton steam road roller which can be weighted to seven and one-half tons has been added to the implements of the park system at a cost of $1,750, which permits now of the rolling of the park roadways, which is much superior to the old method of rolling with a horse roller and at less cost. The commission is now well equipped with road rollers, having beside the one just mentioned, a twelve-ton steam road roller for boulevard purposes.

Assessments: The Commission under the act creating it, constructed 2,426 square feet of cement sidewalk at various points along the boulevard and a special assessment was levied against the abutting property for the same, as follows:

Sidewalk assessment rolls No. 6470 to 6475 inclusive.

Lot 2, south side Boulevard, between Frontenac and McDougall, Waltz's Sub. of lot 11, Collins farm, 180 sq. ft., at 12c.....	$21 60
Lot 3, south side Boulevard, between Frontenac and McDougall, Waltz's Sub. of lot 11, Collins farm, 180 sq. ft., at 12c.....	21 60
Lot 63, south side Boulevard, between St. Aubin and D., G. H. & M. R. R., Harrah & Brandenburg's Boulevard Sub. of that part of lot 14 lying west of St. Aubin Avenue, and a part of lot 15 of Theodore J. and Dennis J. Campau's Sub. of Frac. Sections 29 and 32, 180 sq. ft., at 12c.....	21 60
Lot 61, south side Boulevard, between St. Aubin and D., G. H. & M. R. R., Harrah & Brandenburg's Boulevard Sub. of that part of lot 14 lying west of St. Aubln Avenue, and a part of lot 15 of Theodore J. and Dennis J. Campau's Sub. of Frac. Sections 29 and 32, 180 sq. ft., at 12c.....	21 60
Lot 60, south side Boulevard, between St. Aubin and D., G. H. & M. R. R., Harrah & Brandenburg's Boulevard Sub. of that part of lot 15 of Theodore J. and Dennis J. Campau's Sub. of Frac. Sections 29 and 32, 180 sq. ft., at 12c.....	21 60
Lot 110, east side Boulevard, between Trombly and Milwaukee, Wm. C. Maybury's Sub. of lot 10 of Theodore J. and Dennis J. Campau's Plat of the Sub. of Frac. Sections 29 and 32, 180 sq. ft., at 12c.....	21 60
N. 28 ft. of lot 25 of Chas. F. Campau's Sub. of the west ½ of P. C. 78 north of Chicago Road, west side of Boulevard, between Michigan and Myrtle, 168 sq. ft., at 12c.....	20 16

West side of Boulevard, between Michigan and Myrtle, lot 27 of Chas. F. Campau's Sub. of the west ½ of P. C. 78 north of Chicago Road, 300 sq ft., at 12c.....	36 00
West side Boulevard, between Michigan and Myrtle, lot 29 of Chas. F. Campau's Sub. of the west ½ of P. C. 78 north of Chicago Road, 300 sq. ft., at 12c.....	36 00
East side of Boulevard, between Fort and Porter, lot 2, Davis Sub. of the ely. 295 ft. of the s. 449.03 ft. of the s. 534.46 ft. of P. C. 78 lying s. of the s. line of Porter Street, 300 sq. ft., at 12c.....	36 00
East side of Boulevard, between Fort and Porter, n. 20 ft. of lot 3, Davis sub. of ely. 295 ft. of the s. 449.03 ft. of the s. 534.46 ft. of P. C. 78 lying s. of the s. line of Porter Street, 120 sq. ft., at 12c...	14.40
East side of Boulevard, between Howard and Fort Street, lot A of Davis Sub. of part of the A. Campau farm P. C. 78, 158 sq. ft., at 12c.	18 96
	$291 12

Shade Trees on Public Streets: In the last two annual reports, the attention of your honorable body was called to the fact that many of the trees along the public streets are being greatly injured by insect pests and that some action should be taken whereby the trees along the public streets which are the pride of every citizen, could be cared for.

Play Grounds for Children: Your attention was called to this subject in last year's report. It has been thoroughly demonstrated in many of the eastern cities that play grounds for children do much good; they afford them a place to exercise other than in the streets, which tends to educate them both physically and morally, thus making them better men and women.

Band Concerts: Among the most delightful and successful features of enjoyment on the parks by the multitudes of people during the past season were the popular open air band concerts which were given on Sunday afternoons alternately at Belle Isle and Clark Parks, and on week days, two concerts were given daily, distributed among the larger parks. Thousands of people were lured from the sultry, dusty streets to the fresh air of the parks.

The general attendance at the band concerts has largely increased. The musical program was varied to suit all classes and a conservative estimate places the attendance at many of the concerts at 25,000.

Aquarium and Horticultural Building: In 1899, park improvement bonds for $150,000 were issued and sold for the erection and equipment of a combined aquarium and horticultural building. The requirements of the building were determined, as near as may be, in January, 1900 and the site selected on February 3 following, but

CAST AT SEVILLE, SPAIN, MAY 29, 1779; CAPTURED IN THE HARBOR DEFENSES OF SANTIAGO, CUBA, JULY 14, 1898—BELLE ISLE.

owing to the project of building a bi-centenary memorial on Belle Isle Park, designs were not asked for until the fall of 1900. Eighteen of the resident architects signified their intention to enter the competition for the designs of the proposed building under the code prepared for the purpose by a committee from the Michigan Chapter of the American Institute of Architects who worked in conjunction with the Commissioners of Parks and Boulevards. However, on October

15, 1900, the date of the closing of the competition, but eight designs were submitted and the custodian, M. P. Hurlbut, shipped them, unopened, to the jury selected to pass upon them, which met in New York City, at the Hotel Cadillac, October 17, 1900. The jury was composed of the following gentlemen:

John G. Howard, Architect, New York City.
Cass Gilbert, Architect, New York City.
Wm. DeC. Ravenel, Aquarist, Washington, D. C.
J. F. Cowell, Horticulturist, Buffalo, N. Y.

BRIDGE NO. 10, ON PICNIC WAY—BELLE ISLE.

The report of the jury, signed by each member thereof and dated October 18, 1900, is as follows:

"We have the honor herewith to submit our report in the matter of the competition for the proposed aquarium and horticultural building to be erected on Belle Isle Park in the City of Detroit.

"Of the eight designs submitted for our inspection, we find No. 1 to be distinctly the best.

"The three designs which we find to be next in order of merit are Nos. 5, 7 and 2.

"In our judgment, any one of the four designs above mentioned can be constructed within the appropriation of $100,000."

BRIDGE NO. 12, ON THE STRAND—BELLE ISLE.

The names of the designers of the premiated plans are as follows:

No. 1. Nettleton & Kahn, (now Mason & Kahn.)
No. 5. Geo. H. Ropes.
No. 7. Edward A. Schilling.
No. 2. F. Carl Pollmar.

At the present time, Mason & Kahn, successors to Nettleton & Kahn, are perfecting the plans and specifications for

POLAR BEARS—BELLE ISLE.

the proposed combined building and each of the other above mentioned architects was awarded $200.00 in accordance with the code of competition, and the jurors were each paid $150.00 for professional services.

Belle Isle Park: There have been two permanent bridges built on this park during the past fiscal year, the material being stone and steel; the larger bridge, known as No. 10, being located on Picnic Way near The Strand. spanning the canal at its entrance into Lake

WOLF RUNWAY—BELLE ISLE.

Takoma, the contract price of the bridge being $5,800.00. The other bridge, known as No. 12, is located on The Strand at the south side of Belle Isle Park, spanning the south inlet to Nashua Canal, the contract price being $3,000.

The plank roadways of bridges Nos. 2 and 7 have been replaced by expanded metal and concrete.

RACCOONS—BELLE ISLE.

The roadways commencing at Belle Isle casino were resurfaced east to nearly Inselruhe avenue.

The Belle Isle bridge approach has been ornamented and improved, which adds much to the attractiveness of this portion of Belle Isle Park.

MOOSE—BELLE ISLE.

The south inlet to Nashua Canal and the inlet to Lake Okonoka has been dredged, also Lake Takoma has been deepened as far as the money appropriated would allow, some $4,000 being required to complete the work. However,

much benefit is derived from the work already done as is shown in Lake Takoma and Loop Canal.

A new wooden footbridge was built across the canal at the boat-house, the old one being dangerous.

Three ornamental sanitary ice-water drinking fountains were constructed in the picnic grounds, and this work should be continued from time to time until all the unsanitary water tanks have been replaced by new and healthful drinking places.

GRIZZLY BEAR—BELLE ISLE.

The zoological department has received its due share of improvements. A new fence has been erected around the lagoons. A coonery has been added thereto which has proven to be quite an attraction. The collection of animals has been increased by the addition of three fine specimens of the polar bear. They were captured in Greenland in 1895. Two moose have also been placed in the collection. There are on exhibition in the zoological department: aligators, buffalo; polar, grizzly and black bears; badgers; India silky and frizzy chickens; ducks, of various kinds; Virginia

deer, bald and golden eagles, elk and moose, wild and Poland geese, blue heron, Canadian lynx, ostriches, owls of various species, prairie dogs; silver, Amherst, ringneck, golden and Mongolian pheasants; pea fowls, several varieties of pigeons, raccoons, English hare, mute swan, white wild turkeys; timber, grey and coyotte wolves; monkey and Zebu.

A new large phæton at a cost of $545.00 was added to the phæton service, which materially assists in transporting the large crowds across Belle Isle bridge.

The phæton registers show that during the last fiscal year there were 231,774 passengers carried across Belle Isle bridge, and 35,869 were carried around the park, the receipts being $10,071.84.

The capacity of the bath-house has been increased by the addition of a number of rooms upstairs over the main office. The bath-house was patronized extensively as is shown by the cash register. 35,914 men and boys and 3,471 women and girls bathed during the season, the total receipts being $2,164.50.

The maintenance of Belle Isle Park was carried on in the most economical manner consistent with the large crowds which gather there, yet it is impossible to keep the park as it should be for the allotted appropriation and many things suffer for the lack of funds. It is hoped that sufficient funds in the future will be appropriated to care properly for the maintenance, as improvements should be cared for or not made.

Palmer Park: The new entrance to Palmer Park from Woodward avenue to the park proper has been nearly completed. The foot paths and most of the roadways are made and the lawns largely planted. Near Woodward avenue at the loop of the street car line, there was erected a log waiting room, the United Railway Co. donating $600.00 toward the erection thereof. The log waiting room harmonizes with the general rural effects carried out on the park.

Many minor improvements have been made and the maintenance kept up to the highest degree that the money

allowed would permit. The water main has been extended to the six mile road where it is hoped connection can soon be made with the Highland Park Woodward avenue mains, at

BEECH TREE—PALMER PARK.

which time the park will be supplied with city water. The water used at the present time is supplied by Sen. T. W. Palmer from mineral wells, which is detrimental to growing plants.

Arboretum: The arboretum is now well under way, which when completed will be a valuable addition to the park and boulevard system, especially from an educational standpoint, as it is proposed to have all the varieties of trees and shrubs growing there that are native to Michigan.

Nursery: A nursery has been established to supply the park and boulevard system and within a short time all the trees and shrubs required will be taken therefrom. It is found that they can be grown at a much less

price than the same can be purchased for from commercial nurseries, besides the advantage gained in planting where

NATIVE FOREST—PALMER PARK.

the stock is transplanted the same day it is removed from the nursery rows, avoiding many dangers of loss which arise from the purchase of stock from distant nurseries.

WASHINGTON PARKWAY—WINTER AND SUMMER.

Clark Park: The water system in this park has been practically completed and extensive border planting has been done, which adds greatly to the appearance of the park.

The area of this park is insufficient for the multitudes that gather there and the addition talked of to be used as an athletic field will be much appreciated by a mass af people, and legal proceedings are now in progress to acquire the same.

City Parks: The general improvement in Owen Park was carried forward as far as the money appropriated would permit and a stone drinking fountain was provided for in Grand Circus Park and all of the other city parks received their due share of improvement in the way of planting, walks, lawns, surface and sprinkling pipe system, etc.

Boulevard: The sidewalk and roadway intersections along the Boulevard have been put in in accordance with the money alloted. A new roadway on the north side of the main driveway from Russell street to Dequindre street bridge has been constructed, permitting ingress and egress to the factories located there.

The lawns along the Boulevard were brought to grade so far as possible and many other improvements were made as required.

The maintenance of the lawns and roadways was kept to the highest standard consistent with the allowance for the purpose.

The unfinished sections of the Boulevard, from Mack to Gratiot on the east side and from Buchanan to Myrtle street on the west, should be completed at an early date.

The extension of the Boulevard from Fort street south to the river has been recommended by the Commissioners of Parks and Boulevards and also by the Common Council and proceedings are now under way to acquire the right-of-way.

Condemnation proceedings are now in progress to acquire a strip of land on the east side of Belle Isle bridge approach

from Jefferson avenue to the channel bank for the purpose of widening the bridge approach, it now being very much congested, and also for the purpose of having room upon which to place a waiting room and lavatory.

Policy of the Commission: The policy of the Commission has been strictly adhered to, *i. e.*, that the parks shall always be open to all citizens on absolutely equal terms, special privileges to none, nor the use of the

LILACS—NORTHERN GRAND BOULEVARD WEST.

parks given to anyone for any purpose not practically common to all, and consistent with the proper use of public parks.

Conclusion: The parks and boulevards are growing in importance and in popularity as is shown by the increasing number of pleasure seekers who throng them.

Yearly the maintenance increases owing to new improvements; therefore your honorable body is earnestly asked to consider this matter in granting the appropriations, as sufficient money should be provided to properly maintain the system in keeping with the improvements.

The Gen'l Superintendent's report in detail from July 1, 1900, to May 31, 1901, and the Secretary's financial report for the fiscal year are both included as a part of this report.

Respectfully submitted,

Commissioners of Parks and Boulevards, from *July 1, 1900 to May 31, 1901.* M. P. HURLBUT, Sec'y and Gen'l Mngr.	A. W. BLAIN, President. EDWARD C. VANLEYEN, Vice-President. WILLIAM GEIST. P. H. A. BALSLEY.
Commissioner of Parks and Boulevards, from *June 1, 1901, to June 30, 1901.* M. P. HURLBUT, Sec'y.	R. E. BOLGER, Commissioner.

SCENES ON BELLE ISLE.

GENERAL SUPERINTENDENT'S REPORT

To the Honorable, The Commissioners of Parks and Boulevards :

GENTLEMEN :

The following report submits for your consideration the work done on the park system for the first eleven months of the present fiscal year.

The seasons have been very favorable for park work. Timely rains during July and August, absence of severe freezing weather until December, ample protection of vegetation by snow during the severe weather of the winter, an early spring with cool rains during May, all combined were for the best health of the plants and lawns. It also gave ample time for each stage of the work and to accomplish it at a reasonable expense. Add to this the many little improvements for the past three years on lawns, roadways, buildings, seats and appliances of all kinds results in placing the system in a fair degree of excellence.

The work on the city parks and boulevards was commenced fully a month earlier than usual, and they were placed in a presentable condition as soon as they could be

used by the people. The work on Belle Isle Park, because of the low and level character of the ground, precludes the possibility of doing the spring work in advance of settled weather. While on the other hand, there can be seen many things which should be done that the beauty of the parks may be enjoyed without the presence of any untidyness, yet

CACTI BED—BELLE ISLE.

it is a source of gratification that the work is being carried along and the system is yearly improving without any appreciable expenditure in maintenance.

Engineering Department: The work on the survey of Belle Isle Park, as noted in the previous annual report, was continued. The location of the trees and shrubs on the boulevard map has been completed, and much time has been given to the making of maps and compiling descriptions of property for the condemnation of land for park purposes, besides the routine work of laying out grades and lines for such park work as demand them.

Greenhouse Department: For the season of 1900 there were raised and set out in each park the following number of bedding plants; the wholesale value of which is set opposite each:

Location.	No. Plants.	Value.
Belle Isle Park,	133,897	$4,649.20
Boulevard,	2,226	114.20
Cadillac,	305	20.63
Campau,	1,040	46.55
Capitol,	7,546	308.78
Cass,	4,080	177.65
City Hall Lawn,	18,002	1,036.14
Clark,	4,380	165.03
Clinton,	500	33.40
Grand Circus,	9,652	548.85
Harmonie,	665	37.50
Owen,	433	22.44
Palmer,	3,325	127.83
Perrien,	525	24.75
Police Stations,	3,880	132.15
School grounds,	450	24.00
Soldiers' Monument,	2,165	124.90
Stanton,	1,034	58.15
Washington,	1,423	63.76
West,	70	4 75
	195,578	$7,720.66

Besides these, there were 3,044 palms, ferns and miscellaneous foliage plants, the value of which is $10,920, which were used to decorate Belle Isle Park, City Hall lawn and several other city parks. These latter plants occupied considerable greenhouse room and cost about one-half of the expenditures of this department for their care. The expense of raising and caring for all these plants, preparing the beds and setting the plants out, was $7,436.09.

A complete range of propagating houses has been planned and as many built as the appropriation would allow, which was the service building, houses No. 2 and 3, which are each 20 x 100 feet, and house No. 6, which is 20 x 40. The ranges

are planned for detached houses as much as possible, which will allow the hardening off of the bedding plants without the expensive hot bed work now in vogue.

Barns, Horses and Vehicle Department: It being the aim for the past year to do the team work of maintenance with Park Board teams, horses were purchased in addition to the funds appropriated. Nine horses were used on the city parks and boulevards, three on Palmer Park, and the remainder on Belle Isle Park, for phaeton service and general work. During the months of November and December about forty horses were used daily in cleaning out lakes and canals, thereby making a great saving over hiring the teams. During the winter the horses were kept busy in hauling slag and manure when not employed otherwise. During the year, the horses belonging to the Commission performed 16,032 days work, while the cost of the care and feed for the same time is $12,836.53, which shows the economy of the Commission owning to a great extent its own teams.

The shoeing of the horses, the repairs to vehicles and harnesses was done by the Commission. Not only was the work done more economically, but much valuable time was saved in running to the shops.

Fifteen horses were sold during the year, of which five were disposed of after the fall work was done, and ten sold this spring on the advice of the attending physician. The price received was $905.00. During the past year, seven horses died of diseases, as follows: Three, colic; one, spinal trouble; one, epizootic; one, hermatorea; and one, pneumonia. Nearly all of the horses were attacked a year ago with distemper and the death of the horses lost was indirectly caused by this disease.

No. of horses in possession of the Board at the beginning of the present fiscal year,	42
No. sold, - - - -	15
No. died, - - -	7
No. purchased, - - -	25
No. on hand May 31st, 1901, -	45

Four new sprinklers were purchased, the tanks being galvanized iron and holding 1,000 gallons each. The wheels have 6 inch treads, the hind wheels traveling outside of the front wheels, which act as a roller to the driveways to a considerable extent. In addition there were purchased four work

NURSERY—PALMER PARK.

wagons, a single horse truck for greenhouse department, besides making over an ice wagon, one cart and several harnesses.

The need of storage facilities for vehicles and forage is very great. The present shelter is a delapidated, makeshift of an affair, and the trouble to pack away the vehicles in the limited space prohibits it being done during the working season, and the loss by exposure to the elements is no inconsiderable amount.

Nursery: During the past fiscal year the Nursery has become thoroughly established and the propagation of plants is proceeding very rapidly. A frost proof storage pit has been erected in connection with the propagating house in which plants are held in a dormant state through the winter. It is also largely used for the purpose of storing cuttings that have been started in the propagating house, and many cuttings of easy propagation are placed directly in this house in which they callouse and root very readily. Many valuable trees and shrubs have been gathered from the woods and fields adjoining and placed in nursery rows. A large number of layers were made during the past summer in the nursery and on various parts of the park system and are now planted out in nursery rows. The trees and shrubs planted on the park system during the past year dug from the nursery were all charged to the expense of maintaining this department. During the winter 55,348 cuttings were made and this spring planted in cutting beds, and from present indications a large per cent will grow. There was also sown large quantities of seeds which are now germinating. The following is the inventory of the work in the nursery department for the past fiscal year:

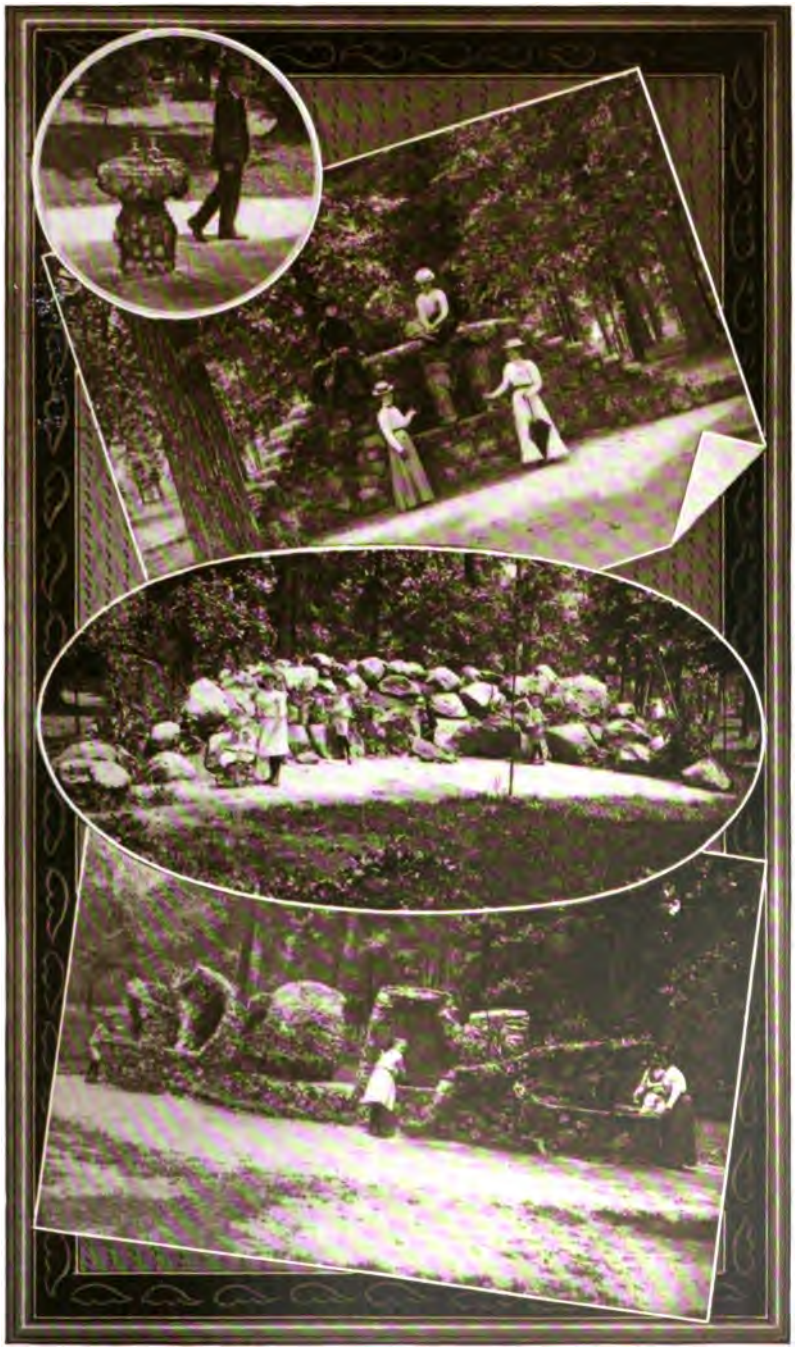
STOCK PLANTED OUT.

	Trees.	Shrubs.	Herbaceous Perennials.	Total.
No.	1,439	5,684	1,581	8,704
Value,	$1,019.98	$611.77	$129.48	$1,761.23

STOCK IN THE NURSERY.

	Trees.	Shrubs.	Herbaceous Perennials.	Total.
No.	16,426	18,675	1,684	36,785
Value,	$1,301.70	$1,092.22	$188.44	$2,582.36

Belle Isle Park: In maintenance, there has been no very great variation from that of the past year. The funds for this purpose were exhausted during the first week in March and the expense for the remainder of the year was met by using the various revenues of the park.



ICE WATER DRINKING FOUNTAINS—BELLE ISLE.

The work in caring for the park is yearly becoming greater as the increasing facilities for accommodating large crowds is attracting visitors more than ever to the Island. The many shady nooks, the numerous retreats and the ever present view of the river offers so many attractive points to

NEW ICE HOUSE—BELLE ISLE.

loiter that all can secure the requisite privacy for family parties. All are accommodated with pleasure to themselves and without hindrance to others.

The phaeton service was taxed to its limit during July and August, as was also the bath house, the latter paying a profit over its running expenses, as is shown by the financial statement.

The main improvements to Belle Isle Park are itemized as follows:

The bridge approach was completed by making a concrete coping along the roadways, concrete foot walks for a short

distance from the bridge, the building of crushed stone foot walks, the seeding of the lawn and the planting of shrubs and trees, all of which exhausted the fund appropriated.

An icehouse 100 feet long by 30 feet wide by 24 feet high was built near Lake Muskoday. The capacity of this house

PICNIC PAVILION—BELLE ISLE.

is 1,580 tons. The old icehouses hold 926 tons. Both were filled, from which it is contemplated to supply the city parks as well as Belle Isle the coming summer.

A comprehensive plan for deepening and changing the canals and lagoons was adopted by the Board and the work was commenced and carried as far as the funds appropriated would allow. The north inlet to Lake Okonoka was dredged to the deep water in the river, the cut being about 700 feet long. The excavated dirt was used to stop up the inlet under bridge No. 17, through which the water forced into Lake Muskoday ran out again into the river and not through

the inland lakes and canals as designed. The inlet under bridge No. 12 was deepened by dredging and the work of deepening Lake Tacoma was about three-fourths accomplished and a new cut from Lake Takoma to Loop canal was completed. The plan contemplates a water way through Lake Takoma of 200 square feet of cross section through a new cut 150 square feet, and by the old power house 50 square

SWAN LAKE—BELLE ISLE.

feet. The water will be fed to Lake Takoma through the inlet under bridge No. 12, which is planned to give 140 square feet of cross section and through Nashue Canal, which will give 120 square feet. This large volume of supply, when the whole work is completed, will certainly make the desired current through Loop Canal; the work now although but partially done is giving admirable results in increasing the current in Lake Takoma and Loop Canal.

The increasing number of specimens in the zoological department, made it necessary that a considerable change be made in the grounds. Four wolf paddocks were made by a rearrangement of the one occupied by the timber wolves. The swan lagoons were closed by a serviceable steel wire fence of neat design and the level of the water was raised in two sections to cause a water fall and to more easily separate the water fowls and make room for water animals. It was planned to erect a shelter for the deer family. Looking to that end, a passage way was made between the deer and reindeer enclosure, which passage is now used to contain the moose purchased last fall. A coonery was erected and several specimens placed on exhibition. Three polar bears were purchased, to make room for which, three of the five black bears were sold.

The money appropriated for resurfacing roads and walks was used to resurface Central Ave. from the casino eastward nearly to Inselruhe Road. Granite screenings was used for road surfacing and placed on the gravel roadbed. 320 feet of roadway not having a foundation, the soil was excavated and a macadam road was constructed. A foot walk 1,750 feet long by 8 feet wide was made on the south side of Central Ave. from Muse Road to Inselruhe. Also most of the foot walks on the easterly half of the Island received a dressing of limestone, beside making many repairs to roads and walks not counted below.

	No. sq. Yards.	Approximate cost per sq. Yard.
Roads resurfaced,	8,766	18c.
Roads constructed,	1,400	75c.
Walks resurfaced,	25,424	2c.
Walks constructed,	1,555	50c.

Numerous repairs were made to buildings and fixtures, the work being mostly done by carpenters and painters in the employ of the Board. The shelter ferry dock was made safe by putting new footings to the posts and minor repairs to the passageway. A new picnic pavilion was added east of Picnic Way, several old ones repaired, rustic stands, seats and set-

tees were made over, and a large refrigerator room built in the casino. The boathouse and barns were repainted, besides numerous repairs necessary to keep the wooden fixtures in safe condition.

City Parks and Boulevard: This part of the system was maintained to a satisfactory degree. All the shrubs and young trees received a dressing of manure, which consumed about 1,600 cubic yards. The lawns on the boulevard, for which there was a special appropriation, were kept well mowed, which added much to its neat appearance.

CANNON TAKEN FROM SPANISH SHIP VISCAYA AT BATTLE OF SANTIAGO, JULY 3D, 1898—CADILLAC PARKWAY.

The itemized approvements are as follows;

CADILLAC PARK:

A Viscaya cannon was placed in this park and the surrounding lawn was releveled and sodded. The walks were all resurfaced and a number of shrubs used to enlarge the present plantations.

CASS PARK.

The lawns were thoroughly graded and sodded and the trees carefully pruned.

CLARK PARK:

Water pipe was laid in the south part of the park and in certain sections near the north end, which now completes this improvement, there being laid 3,689 feet of one inch pipe and 350 feet of four inch pipe. The borders of the park were extensively planted with trees, shrubs and herbaceous perennials consuming over 7,000 plants, of which 4,500 were trees and shrubs. One hundred iron settees were purchased for the park. A horse, a light truck and a horse lawn mower were added to the equipment, and six swings and a sand garden were provided for the smaller children. The small lake in this park was patronized by many skaters, while though being inadequate to the demand, answers the needs for this winter recreation for the smaller children.

GRAND CIRCUS PARK.

The walks on the west side were reestablished where required to meet the changed conditions of Washington Parkway, and all the walks were resurfaced. A cistern for ice water was also made on the west side, a drinking fountain not yet being completed. Both display fountains were thoroughly cleaned and repainted, the trees trimmed and lawns fertilized.

MEDBURY PARK.

The planting of trees and shrubs was extended as far as the appropriation would allow. A surface water system should be placed in this park in place of the hydrants which are too far apart to do rapid work in caring for the lawn.

OPERA HOUSE LAWN.

The Merrill fountain being about completed, the small portion of the lawn remaining was sodded and a number of

privit shrubs were placed in the corners to prevent the making of footwalks across the sodded portions, these shrubs being placed before the protecting curb was put in position, had a hard time to survive the ill usage of people walking through them.

MERRILL FOUNTAIN—OPERA HOUSE LAWN.

OWEN PARK.

The lower half of the park was completed, as to bringing it to the established grade. The surface was enriched and seeded and landscaped to a small extent. Several thousand yards of material was dumped at the water's edge which extended the park about one hundred feet farther into the river. It is unfortunate that more liberal appropriations have not been made during the past three years, so that the rough work of filling would not now have to be carried through the finished portion of the park.

PERRIEN PARK.

The walks were resurfaced and a portion of the lawn brought to an even grade by the addition of rich loam and there now remains but a small portion of the park to be brought to a grade and leveled, so that the whole can be cut with a lawn mower. Many beds of shrubbery were enlarged and several additional trees planted.

STANTON PARK.

A concrete walk was laid through the park and around the fountain, which necessitated regrading and sodding of a portion of the lawn.

SECOND AVENUE PARKWAY.

The lawns were seeded and several scarlet oak trees planted. All further planting must wait until the water pipes are laid through the park.

VOIGT PARK.

The entire park was plowed, graded and seeded. No further improvement is advisable until water pipe is laid through the park and a sewer built so that the level of the lake can be controlled.

Washington Parkway: The location of the walks was changed and pipe systems for sprinkling the lawns were added to the two northerly sections. A display fountain of field boulders was built in the section directly north of Michigan Avenue. The water was kept running during the winter and made a pyramid of ice 36 feet high and about 40 feet in diameter. The daily change of the formation of the ice attracted thousands of visitors and was the subject of many newspaper cuts and paragraphs throughout the country. An ice water drinking place was made near this fountain and is in almost constant use.

BOSTON PARKWAY, 1901.

AS IT LOOKED IN 1899.

Boston Parkway: The work of making this park was all completed from the funds of the present fiscal year and it presents an attractive appearance seldom obtained in most parks in several years as they are usually used for a public dump before being turned over to the Park Commission. The surface soil was retained in grading and a foundation for the rapid growth of the grass, shrubs and trees at once put them on a sure foundation and gave immediate results, which accounts for its present pleasing condition.

Grand Boulevard: The money appropriated for lawns was largely used in grading at the street intersections; many portions were reseeded, and those most exposed were sodded. The fund for planting was used to extend the beds already established, beside planting trees where most required. The roadway was repaired as far as filling the small ruts, but the need of a general resurfacing is imperative in certain sections as nothing but the foundation remains and no amount of sprinkling or rolling will keep it from disintegrating. The planking on Dequindre St. bridge was repaired where most needed, the funds not being sufficient to make the work complete in any one portion. A dangerous jog between Baker and Dix Ave. was removed by widening the roadway, and the lawn on the south side of Dix Ave. was cut back and the space macadamized. The two alleys north of Dix Ave. were changed from a dirt to macadam roadway and the four alleys directly north and south of Michigan Ave. were filled in and resurfaced so that the water would not stand on the footwalks. The main driveway was raised at Mt. Elliott Ave. where there was a bad crossing over the street car tracks. An intersection at Warren Ave. East was built and the intersections at Mack and St. Paul Avenues were resurfaced. The side driveway from Russell St. to the facto.ies near Dequindre St. bridge was made to accommodate the factories at that point and to keep heavy traffic off from the main Boulevard driveway, there being heretofore no other entrance.

to add. Many specimens have been collected that appear to vary from the types as described by the authorities. They are grouped in their proper genus and their identification will be referred to specialists. The lawn of the arboretum has been graded and seeded and the plants as far as known properly labeled. The need of tiling the arboretum is apparent and for the sake of the health and thrift of the plants therein, it should be taken up before another winter. The grounds occupied by the nursery should be likewise drained, even though the unfinished road along the southerly side of the park should be left unimproved for another year. The following is a list of trees and shrubs native to Michigan, all of which are now placed in the arboretum excepting those marked with a star.

ABORETUM OF MICHIGAN PLANTS—PALMER PARK.

LIST OF . . . . .

TREES and SHRUBS

NATIVE TO MICHIGAN.

Those not Planted in PALMER PARK ARBORETUM are Marked With a Star.

Abies balsamea (L.) Mill.....Balsam Fir.
Acer Negundo L.....Box Elder.
" nigrum Michx.....Black Sugar Maple.
* " Pennsylvanicum L.....Striped Maple.
" rubrum L.....Red Maple.
" saccharinum L.....Silver Maple.
" Saccharum Marsh.....Sugar Maple.
" spicatum Lam.....Mountain Maple.
Æsculus glabra Willd.....Feted Buckeye.
*Alnus Alnobetula (Ehrh.) K. Koch.....Green Alder.
" incana (L.) Willd.....Speckled Alder.
* " rugosa (DuRoi) K. Koch.....Smooth Alder.
Amelanchier alnifolia Nutt.....Northwestern June-berry
" Botryapium (L. f.) DC.....Shadbush.
" Canadensis (L.) Medic.....Service-berry.
* " oligocarpa (Michx.) Roem.....Oblong-fruited June-berry
" rutundifolia (Michx) Roem.....Round-leaved "
" spicata (Lam.) Dec.....Low June-berry.
Amorpha canescens Pursh.....Lead-plant.
Andromeda Polifolia L.....Wild Rosemary.
Aralia hispida Vent.....Bristly Sarsaparilla.

Arctostaphylos Uva-Ursi (L.) Spreng.....Bearberry.
Aronia arbutifolia (L.) Ell.....Red Choke-berry.
" nigra (Willd.) Britton.....Black Choke-berry.
Asimina triloba (L.) Dunal.....North American Papaw.
Betula glandulosa Michx. .....Scrub Birch.
" lenta L.....Cherry Birch.
" lutea Michx. f.....Yellow Birch.
" papyrifera Marsh.....Paper Birch.
" pumila L.....Low Birch.
Benzoin Benzoin (L.) Coulter.....Spice Bush.
Carpinus Caroliniana Walt. .....Blue Beech.
Castanea dentata (Marsh) Borkh.....American Chestnut.
Ceanothus Americanus L.....New Jersey Tea.
* " ovatus Desf.....Smaller Red-root.
Celastrus scandens L. .....Shrubby Bittersweet.
Celtis occidentalis L. .....Hackberry.
Cephalanthus occidentalis L.....Button-bush.
Cercis Canadensis L.....Red-bud.
Chamædaphne calyculata (L.) Mœnch.....Leather-leaf.
Chiogenes hispidula (L.) T & G.....Creeping Snowberry.
Clematis Virginiana L.....Virginia Virgin's Bower.
*Comptonia peregrina (L.) Coulter.....Sweet Fern.
Cornus alternifolia L. f.....Alternate-leaved Dogwood.
" amonum Mill.....Silky Cornel.
" asperifolia Michx.....Rough-leaved Cornel.
* " Baileyi Coult. & Evans.....Bailey's Cornel.
* " Canadensis L.....Dwarf Cornel.
" candidissima Marsh.....Panicled Cornel.
" circinata L'Her.....Round-leaved Dogwood.
" florida L.....Flowering Dogwood.
" stolonifera Michx.....Redosier Cornel.
" stricta Lam.....Stiff Dogwood.
Corylus Americana Walt.....Hazel-nut.
" rostrata Ait.....Beaked Hazel-nut.
Cratægus Crus-Galli L.....Cocksup Thorn.
" coccinea L.....Scarlet Thorn.
* " Douglasii Lindl.....Douglas Thorn.
" macracantha Lodd.....Long-spine Thorn.
" mollis (T. & G.) Steele.....Red-fruited Thorn.
" punctata Jacq.....Large-fruited Thorn.
" rotundifolia (Ehrh.) Borck.....Glandular Thorn.
" tomentosa L.....Pear Thorn.

Decodon verticillatus (L.) Ell. ....Swamp Loosestrife.
Diervilla Dierville (L.) MacM..... .....Bush Honeysuckle.
*Dirca palustris L. ....Leather-wood.
Euonymus Americanus L. .....Strawberry Bush.
" atropurepurus Jacq. ..... .Burning Bush.
" obovatus Nutt. ....Running Strawberry Bush.
Fagus Americana Sweet.. .....American Beech.
Fraxinus Americana L. .....White Ash.
" lanceolata Borck. .... Green Ash.
" nigra March. ....Black Ash.
" Pennsylvanica Marsh. .....Red Ash.
" quadrangulata Michx.. .... Blue Ash.
Gaultheria procumbens L. .....Spring Wintergreen.
Gaylussacia resinosa (Ait.) T. & G.... .....High-bush Huckleberry.
Gleditsia triacanthos L. ....Honey Locust.
Gymnocladus dioica (L.) Koch..... .....Ky. Coffee Tree.
Hamamelis Virginiana L. .....Witch Hazel.
Helianthemum Canadense (L.) Michx .....Long-branched Frostweed.
" majus (L.) B. S. P. .....Hoary Frostweed.
Hicoria alba (L.) Britton. .....White-heart Hickory.
" borealis Ashe. .....Northern Hickory.
" glabra (Mill.) Britton. .....Pig-nut Hickory.
" laciniosa (Michx. f.) Sarg. .....Big Shag-bark.
" microcarpa (Nutt.) Britton. .....Small-fruited Hickory.
" minima (Marsh.) Britton ....Bitter-nut.
" ovata (Mill.) Britton. .....Shag-bark.
*Hudsonia tomentosa Nutt. .....False Heather.
Hypericum densiflorum Purch .....Bushy St. John's Wort.
" Kalmianum L. .....Kalm's St. John's Wort.
" prolificum L. ....Shrubby St. John's Wort.
Ilex verticillata (L.) A. Gray.....Virginia Winter-berry.
Icilioides mucronata (L.) Britton. .....Mountain Holly.
Juglans cinerea L. ....Butternut.
" nigra L. .....Black Walnut.
Juniperus communis L. ....Juniper.
" nana Willd. .....Low Juniper.
" Sabina L. ....Shrubby Red Cedar.
" Virginiana L. ....Red Cedar.
Kalmia angustifolia L. .....Sheep Laural.
" glauca Ait. .....Swamp Laural.
Larix laricina (DuRoi) Koch. ....Tamarack.
*Lechea minor L. .....Thyme-leaved Pin-weed.

*Lechea tenuifolia Michx.....Narrow-leaved Pin-weed.
" villosa Ell.....Large Pin-weed.
Ledum Grœnlandicum Œder.....Labador Tea.
Lepargyræa Canadensis (L.) Greene.....Canadian Buffalo-berry.
*Lespedeza Virginica (L.) Britton.....Slender Bush-clover.
Liriodendron Tuliperifa L.....Tulip-tree.
Lonicera ciliata Muhl.....American Fly-honeysuckle.
* " cœrulea L.....Blue Fly-honeysuckle.
" dioica L.....Smooth-leaved Honeysuckle.
* " glaucescens Rydb.....Douglas Honeysuckle.
" hirsuta Eaton.....Hairy Honeysuckle.
" involucrata (Richards) Banks.....Involucrated Fly-honeysuckle.
" oblongifolia (Goldie) Hook.....Swamp Fly-honeysuckle.
* " Sullivanti A. Gray.....Sullivant's Honeysuckle.
Malus coronaria (L.) Mill.....American Crab Apple.
Menispermum Canadense L.....Canada Moon Seed.
*Morus rubra L.....Red Mulberry.
Myrica cerifera L.....Wax-myrtle.
" Gale L.....Sweet Gale.
Nyssa sylvatica Marsh.....Pepperidge.
Opulaster opulifolius (L.) Kuntze.....Nine-bark.
Ostrya Virginiana (Mill.) Willd.....Hop Hornbean.
*Oxycoccus macrocarpus (Ait.) Pers.....Large Cranberry.
" Oxycoccus (L.) MacM.....Small Cranberry.
Parthenocissus quinquefolia (L.) Planch.....Virginia Creeper.
" " laciniata Planch.....Cut-leaved Virginia Creeper.
Picea brevifolia Peck.....Swamp Spruce.
" Canadensis (Mill.) B. S. P.....White Spruce.
" Mariana (Mill.) B. S. P.....Black Spruce.
*Pinus divaricata (Ait.) Sudw.....Labidor Pine.
* " resinosa Ait.....Red Pine.
" Strobus L.....White Pine.
Platanus occidentalis L.....Sycamore.
Populus balsamifera L.....Tacamahac.
* " " candicans (Ait.) A. Gray.....Balm of Gilead.
" deltoides Marsh.....Cottonwood.
" grandidentata Michx.....Large-toothed Aspen.
" tremuloides Michx.....American Aspen.
Potentilla fruticosa L.....Shrubby Cinquefoil.
Prunus Americana Marsh.....Wild Plum.
" nigra Ait.....Canada Plum.
" Pennsylvanica L. f.....Wild Red Cherry.

Prunus pumila L. ..... Sand Cherry.
" serotina Ehrh. ..... Wild Black Cherry.
" Virginiana L. ..... Choke Cherry.
Ptelea trifoliata L. ..... Three-leaved Hop-tree.
" " mollis T. & G ..... Three-leaved Hop-tree.
Quercus acuminiata (Michx.) Sarg. ..... Chestnut Oak.
" alba L. ..... White Oak.
" coccinea Wang ..... Scarlet Oak.
" imbricaria Michx ..... Shingle Oak.
* " Leana Nutt. ..... Hybrid Oak.
" lyrata Walt ..... Overcup Oak.
" macrocarpa Michx. ..... Burr Oak.
" Michauxii Nutt. ..... Cow Oak.
" minor (Marsh.) Sarg ..... Post Oak.
" palustris Du Roi ..... Pin Oak.
" platanoides (Lam.) Sudw. ..... Swamp White Oak.
" prinoides Willd ..... Scrub Chestnut Oak.
" rubra L ..... Red Oak.
* " Texana Buckley ..... Texan Red Oak.
" velutina Lam ..... Black Oak.
*Rhamnus alnifolia L'Her. ..... Alder-leaved Buckthorn.
Rhus aromatica Ait. ..... Fragrant Shumac.
" copallina L. ..... Dwarf Shumac.
" glabra L ..... Smooth Shumac.
" hirta (L.) Sudw. ..... Staghorn Shumac.
" radicans L. ..... Poison Ivy.
" Vernix L. ..... Poison Shumac.
Ribes Cynosbati L ..... Wild Gooseberry.
" floridum L'Her. ..... Wild Black Currant.
* " gracile Michx . ..... Missouri Gooseberry.
" lacustre (Pers.) Poir ..... Swamp Gooseberry.
" oxyacanthoides L. ..... Northern Gooseberry.
" prostratum L'Her. ..... Fetid Currant.
" rubrum L. ..... Red Currant.
Rosa acicularis Lindl ..... Prickly Rose.
" Arkansana Porter ..... Arkansas Rose.
" blanda Ait ..... Smooth Rose.
" Carolina L. ..... Swamp Rose.
" humilis Marsh. ..... Low Rose.
" rubiginosa L ..... Sweet Briar.
" setigera Michx ..... Prairie Rose.
" Woodsii Lindl ..... Wood's Rose.

Rubus Americanus (Pers.) Britton .....Dwarf Raspberry.
" Baileyanus Britton ..... Bailey's Blackberry.
" Canadensis L .....Dewberry.
" hispidus L.....Hispid Swamp Blackberry.
" Millspaughii Britton .....Millspaugh's Blackberry.
" neglectus Peck .. ..Purply Wild Raspberry.
" odoratus L ..... Purple-flowering Raspberry.
" occidentalis L ....Black Raspberry.
" parviflorus Nutt. .... Salmon-berry.
" setosus Bigel ..... Bristly Blackberry.
" strigosus Michx. ....Wild Red Raspberry.
" villosus Ait ....High Bush Blackberry.
" " frondosus Bigel..... " " "
Salix adenophylla Hook ....Furry Willow.
* " amygdaloides Anders .....Peach-leaved Willow.
* " balsamifera (Hook.) Barratt .....Balsam Willow.
" Bebbiana Sarg.. ....Bebb's Willow.
" candida Fluegge..... .....Hoary Willow.
" cordata Muhl..... .....Heart-leaved Willow.
" " X candida..... .....Hybrid Willow.
" discolor Muhl .....Glaucus Willow.
* " flaviatilis Nutt..... ..... Sandbar Willow.
" glaucophylla Bebb ..... Broad-leaved Willow.
" humilis Marsh ....Prairie Willow.
" lucida Muhl ....Shining Willow.
* " myrtilloides L..... .....Bog Willow.
" nigra Marsh..... .....Black Willow.
" petiolaris J. E. Smith .....Slender Willow.
* " " gracilis Anders ..... " "
* " purpurea L ..... Purple Willow.
" sericea Marsh..... .....Silky Willow.
" tristis Ait.....Dwarf Gray Willow.
Sambucus Canadensis L ....American Elderberry.
" pubens Michx..... .....Red-berried Elder.
Sassafras Sassafras (L.) Karst..... Sassafras.
Smilax hispida Muhl.....Hispid Green-briar.
Smilax rotundifolia L ....Green Briar.
Solanum Dulcamara L.....Night Shade.
Sorbus Americana Marsh ....American Mountain Ash.
" Sambucifolia (C. & S.) Roen ....Western Mountain Ash.
Spiræa salicifolia L .....American Meadow-sweet.
" tomentosa L..... ... . Hardhack.

Staphylea trifolia L. ..... American Bladder-nut.
Symphoricarpos occidentalis Hook..... ... Wolfberry.
" pauciflorus (Robbins) Britton.....Low Snowberry.
" racemosus Michx .....Snowberry.
" Symphoricarpos (L.) MacM. .... Coralberry.
Taxus minor (Michx.) Britton. .....American Yew.
Thuja occidentalis L. ....White Cedar.
Tilia Americana L. .....Bass-wood.
" heterophylla Vent .....White Bass-wood.
Tsuja Canadensis (L.) Carr ....Hemlock.
Ulmus Americana L ....American Elm.
" fulva Michx .... Slippery Elm.
" racemosa Thomas ....Cork Elm.
Vaccinium atrococcum (A. Gray) Heller ... Black Blueberry.
" Canadense Richards..... Canada Blueberry.
" coroymbosum L..... .... . High-bush Blueberry.
* " membranaceum Dougl ..... Thin-leaved Bilberry.
* " nigrum (Wood) Britton .....Low Black Blueberry.
* " ovalifolium J. E. Smith..... .... ..Tall Bilberry.
" Pennsylvanicum Lam ....Dwarf Blueberry.
* " uliginosum L..... .....Great Bilberry.
" vacillans Kalm.....Low Blueberry.
Viburnum acerifolium L .....Maple-leaved Arrow-wood.
* " alnifolium Marsh .. ..Hobble-bush.
" cassinoides L ....Withe-rod.
" dentatum L ....Arrow-wood.
" Lentago L... ....Nanny-berry.
" Opulus L..... .... Cranberry-tree.
* " pauciflorum Pylaie.....Few-flowered Cranberry-tree.
" prunifolium L. .....Black Haw.
" pubescens (Ait.) Pursh ..... . Arrow-wood.
Vitis bicolor LeConte..... .. .. Winter Grape.
" Labrusca L .... Northern Fox-grape.
" vulpina L... .. ..Riverside Grape.
Xanthoxylum Americanum Mill .....Prickly Ash.
Xolisma ligustrina (L.) Britton..... .....Privet Andromeda.

Respectfully submitted,

R. J. CORYELL,
Gen'l Supt.

May 31, 1901.

LOG WAITING ROOM AND PARKWAY—PALMER PARK.

SECRETARY'S REPORT

To the Honorable, The Commissioner of Parks and Boulevards:

DEAR SIR:

I have the honor to herewith submit the annual financial statement for the past fiscal year from July 1, 1900, to June 30, 1901, both days inclusive, showing the cash balance in the city treasury at the close of business on June 30, 1901, as follows:

Park and Boulevard Fund,	- -	$9,177.87
Park Improvement Fund,	-	148,127.93

Certified to by the Deputy City Controller as per his statement hereto attached.

The report also shows a list of the principal improvements and their cost, a statement of the amount of bonds issued, the estimates asked and the amounts allowed since 1889, also in tabulated form a complete list of expenditures of the park and boulevard system since 1854.

Respectfully submitted,

M. P. HURLBUT,

Secretary.

June 30, 1901.

OFFICE OF THE CONTROLLER,
DETROIT, July 2, 1901.

HON. M. P. HURLBUT, Sec'y,

Park and Boulevard Commissioner, Detroit.

DEAR SIR: I hereby certify that the cash balance to the credit of the Park and Boulevard Fund at the close of business June 30, 1901, is $9,177.87

and that the cash balance to the credit of the Park Improvement Fund is..... 148,127.93

Respectfully,

HOWARD C. BECK,
Deputy Controller.

Financial Statement.

JULY 1, 1900 to June 30, 1901.

RECEIPTS.

Park Improvement Fund.

Cash balance July 1, 1900.....		$149,567 15

EXPENDITURES.

Printing and stationery.....	$58 22	
Aquarium and horticultural building plans, etc.....	1,381 00	
Total expenditures.....		$1,439 22

RECEIPTS.

Park and Boulevard Fund.

Cash balance, July 1, 1900.....		$4,682 63
Appropriation, 1900.....	$173,502 00	
Casino privilege, Belle Isle.....	2,700 00	

Skating pavilion privilege, Belle Isle	$500 00	
Boating privilege, Belle Isle	400 00	
Bicycle privilege, Belle Isle	223 97	
Pony privilege, Belle Isle	475 00	
Soldiers' Monument fund	100 00	
Phæton receipts	10,071 84	
Bath-house receipts	2,164 50	
Casino privilege, Palmer Park	162 68	
Ferry license	600 00	
Boat landing permits	250 00	
Boulevard sidewalk assessments	373 95	
Detroit Boat Club rental	1 00	
Detroit Yacht Club rental	1 00	
Interest on sidewalk assessments	29	
Boulevard Encroachment leases	2 00	
United Street Railway donation	600 00	
Sale of horses	680 00	
" cobble stone	612 90	
" electric motor	125 00	
" dynamo	25 00	
" engine, etc	410 00	
" trees	25 00	
" chairs	50	
" animals	94 00	
" old iron, etc	34 36	
" cement bags	20 30	
" ice, Belle Isle	2 55	
" " Palmer Park	23 52	
Sewer contract, Palmer Park, refunded	25 25	
Decorating Michigan Club	17 00	
Hauling, etc, for Lord & Burnham Co	11 21	
Sale of crushed stone	21 60	
Rent of road roller	86 75	
Hauling for sundry persons	35 54	
Inspection permits	36 25	
Uncalled for checks, deposited city treasury	37 65	
Special appropriation for skating pavilion platform	250 00	194,702 61
Total		$199,385 24

Park and Boulevard Fund.

EXPENDITURES.

GENERAL MAINTENANCE.

Administration.

Salaries	$6,138 41	
Printing and stationery	1,383 53	
Office rent, etc	1,204 92	
Incidentals	172 15	$8 899 01

Engineering Department.

Salaries and wages	$1,423 13	
Supplies	130 19	1.553 32

Telephones.

Rent and repair		248 11

Green House Department.

Propagation	$4,889 69	
Planting floral, Belle Isle	1,622 54	
" " city parks and boulevard,	366 63	
Stock	465 11	
Fuel	452 15	7,796 12

Tools and Implements.

Purchase	2,282 21	
Repairs	767 18	3,049 39

Steam Road Roller.

Engineer and wages	504 09	
Rent of Roller	1,000 00	
Repairs	114 37	
Fuel and supplies	203 37	1,821 83

Stone Crusher.

Engineer, repairs and supplies	1,074 50	
Final purchase payment	187 75	1,262 25

Barns, Horses and Vehicles.

Maintenance of barns and horses	$5,630 27		
Vehicles, repairs, etc.	2,285 64		
Shoeing	833 79		
Harnesses, repairs	196 34		
Barn supplies	629 04		
Forage	4,356 35		
City barn rent, forage, etc.	1,387 00	$15,318 43	

Nursery.

Labor	2,007 55		
Stock	121 11	2,128 66	

Band Concerts.

Music		3,885 81	

Fertilizer.

Purchase and gathering		475 13	
Total general maintenance,			$46,438 06

General Improvements.

Horses, purchase	3,128 25		
Cobble, general use, purchase and hauling	1,211 95		
Labeling trees	20 72		
Settees, purchase and repair	138 60		
Sprinkling wagons, purchase	1,800 24		
Truck, purchase	143 00		
Harnesses, buggy, purchase	81 37		
Nursery storage pit	770 63		
Work wagons, purchase	414 10		
New green-house construction	11,059 52		
Total general improvements,			18,768 38

BELLE ISLE MAINTENANCE.

General labor, etc.	$9,213 28
Settees and swings	103 57
Signs, etc.	6 52
Cash registers	261 25

Flower beds	$1,008 45	
Material and supplies	649 08	
Drainage	78 97	
Trees and shrubs	1,462 56	
Flags and staff	70 72	
Scales	230 00	
Fuel	622 28	$13,706 68

Buildings.

Casino	790 92	
Bath-house	398 09	
Skating pavilion	298 41	
Casino ice box	304 94	
Boat-house	7 93	
Barn	297 22	
Green-house	223 90	
Inselruhe	22 16	
Ice-house	80 19	
Picnic pavilions	189 07	
Horse shelter	3 63	
Buildings, general	463 30	
Furniture	398 34	3,478 10

Roads and Walks.

Road maintenance	2,825 35	
Walks, maintenance	198 41	
Hitching bays	143 88	3,167 64

Docks and Bridges.

Docks, care of and repair	221 38	
Bridges, repair	603 28	824 66

Water System.

Repairs	307 15	
Ice and water to tanks and fountains	543 82	
Repairs to tanks	16 45	
Ice cuttings	589 74	
Lily pond	53 50	1,510 66

Lakes and Canals.

Canals	$333 98		
Lily pond	27 07		
Skating Lake	653 31		
Beaches	6 75	$1,021 11	

Zoological Department.

Care of	1,017 60		
Feed	1,537 50		
Cages, repair	50 73	2,605 83	

Closets and Cesspools.

Care of	946 49		
Repairs	165 74		
Supplies	56 39	1,170 62	

Phaeton Service.

Maintenance		5,195 48	

Bath-House Service.

Maintenance	1,681 74		
Suits and supplies	408 45	2,090 19	

Patrolmen.

Wages		411 00	

Rustic Stands.

Repairs		168 90	
Total Belle Isle maintenance,			$35,350 87

BELLE ISLE IMPROVEMENTS.

Roads, construction of and resurfacing,	3,590 60
Belle Isle bridge approach	766 71
New ice-house	2,183 22
Telephone line (private)	424 91
Bridge, No. 2	707 50

Bridge, No. 7	$683 00	
" " 10	2,962 52	
" " 12	2,777 79	
" " 14	1,072 55	
Dredging inlets to lakes and canals	1,179 95	
Takoma lake deepened	7,019 43	
Riprapping	644 94	
Landscaping at shelter pavilion	344 17	
Ferry dock	466 64	
Slag	313 26	
Boat-house bridge	250 00	
New phaeton	545 00	
" " harnesses	800 00	
Purchase of animals for Zoo	1,361 86	
Animal cages and fences	1,622 25	
Lagoon	319 96	
" fence	533 05	
Sprinkling system	$848 29	
Shut-off gates	160 19	
Drinking fountains	621 96	
Settees and swings	173 98	
Bath-house changes	548 00	
Lauudry machinery	494 00	
Trees and shrubs	306 45	
Steam road roller	1,750 00	
Barn, painting	249 09	
Boat-house, painting	268 21	
Pavilions	281 82	
Casino toilet	25 00	
Horse shelter toilet	45 80	
Shelter pavilion toilet	41 90	
General improvements	49 24	
Total Belle Isle improvements,		$36,433 24

BOULEVARD MAINTENANCE.

Roadways and intersections	$1,797 90
Caretakers	2,758 76
Patrolmen	1,462 00
Center and side lawns	1,790 73

General maintenance	$515 07	
Trees and shrubs	904 23	
Floral	1 50	
Water system	197 67	
Walks	54 02	
Viaduct	3 19	
Road sprinkling	1,635 88	
Total boulevard maintenance,		$11,120 95

BOULEVARD IMPROVEMENTS.

Shut-off gates	$85 13	
Lawns	548 56	
Walk construction	312 94	
Walk intersections	804 46	
Tool-houses	94 64	
Trees and shrubs, planting	492 47	
Viaduct planking	417 55	
Fairmount park, drainage	83 86	
Roadway intersection	596 51	
Cutting back center lawns	104 82	
Widening roadways	210 00	
Road, Russell st. to viaduct	1,111 09	
Viaduct, east and west approach	349 72	
Total boulevard improvements,		5,211 75

PALMER PARK MAINTENANCE.

General maintenance	$2,711 29
Roadways	187 61
Walks	54 76
Closets	26 46
Water tanks	2 44
Lawns	403 98
Fountains	30 57
Bridges	6 00
Swings	7 10

Flags and staff	$28 18	
Trees and shrubs	25 51	
Floral	35 36	
Forage	39 00	
Ice-house	4 50	
Cutting ice	61 50	
Buildings, general	239 31	
Fuel	338 29	
Water rates	800 00	
Total Palmer park maintenance,		$5,001 86

PALMER PARK IMPROVEMENTS.

Water main	$2,564 27	
Conduit	443 60	
Arboretum	323 81	
General improvement	248 04	
Lawns	38 37	
Roads	858 41	
Wagon shed	205 84	
Tool house	214 89	
Poultry house	462 86	
Scales	84 92	
Rustic work	12 00	
Walks	219 60	
Trees and shrubs	114 50	
Settees	180 00	
Sewer	371 50	
Coal pit	9 00	
Log cabin	4 65	
Lodge	76 28	
Log waiting room	1,212 07	
Parkway lawns	187 44	
Parkway roads	2,104 26	
Parkway planting	236 09	
Total Palmer park improvements,		10,172 40

CLARK PARK MAINTENANCE.

General maintenance	$1,716 96	
Floral	5 25	
Buildings	75 56	
Water	39 51	
Ice	74 34	
Trees and shrubs	14 76	
Total Clark park maintenance,		$1,926 38

CLARK PARK IMPROVEMENTS.

General	$926 41	
Toilet	22 87	
Water system	1,519 20	
Settees and swings	424 08	
Trees and shrubs	1,175 08	
Band stand	4 50	
Lake	109 33	
Total Clark park improvements,		4,181 47

CITY PARKS MAINTENANCE.

Owen.		
General		$27 92
Perrien.		
General	55 77	
Water system	17 50	
Trees and shrubs	7 86	81 13
Grand Circus.		
General	220 82	
Floral	94 57	
Water system	118 06	433 45
Cass.		
General	122 73	
Floral	38 74	
Water system	18 80	
Trees and shrubs	3 00	183 27

Stanton.		
General	$1 50	
Floral	4 38	
Water system	7 69	$13 57
Macomb.		
Trees		3 00
Harmonie.		
General	7 88	
Floral	2 64	10 52
Campau.		
General	14 11	
Water system	20 23	34 34
Cadillac.		
General	145 33	
Floral	3 19	148 52
West.		
General	24 25	
Floral	1 60	
Water system	21 51	
Trees and shrubs	10 50	57 86
Clinton.		
General	21 05	
Floral	11 39	
Water system	21 83	54 27
Capitol.		
General	24 81	
Floral	37 10	
Water system	4 88	
Trees and shrubs	2 19	68 98
Washington.		
General	163 33	
Floral	25 41	
Fountain	110 78	
Trees and shrubs	8 31	307 83

Recreation.			
General	5 80		
Trees and shrubs	8 02	13 82	
Medbury.			
General		45 11	
City Hall Lawn.			
General	46 73		
Floral	204 92	251 65	
Elton.			
General		16 20	
Crawford.			
General		9 95	
Second Avenue Parkway.			
General		8 69	
Boston.			
General		19 28	
Opera House Lawn.			
General		2 94	
Soldiers' Monument.			
Floral		29 44	
City Parks General Maintenance.			
General	1,853 87		
Water system	193 36		
Floral	173 86		
Care-takers	4,120 15	6,341 24	
Total City parks maintenance,			8,162 98

CITY PARKS IMPROVEMENTS.

Owen.		
General	731 10	
Trees and shrubs	133 50	864 60

Perrien.		
General	$302 70	
Trees and shrubs	6 81	$309 51
Grand Circus.		
General	139 83	
Walks	336 33	
Water system	131 91	
Trees and shrubs	4 80	612 87
Cass.		
General		343 91
Stanton.		
Walks	323 03	
Lawns	168 17	491 20
Macomb.		
Trees and shrubs		10 53
Harmonie.		
Trees		10 50
Campau.		
General	16 04	
Trees and shrubs	12 25	28 29
Cadillac.		
Walks	11 80	
Trees and shrubs	10 55	22 35
West.		
General		16 50
Clinton.		
General	20 11	
Trees	7 00	27 11
Capitol.		
General	33 68	
Trees and shrubs	6 32	40 00

Washington.		
Fountain	$2,146 53	
General	79 98	
Walks	272 62	
Water system	110 02	
Trees	78 07	$2,687 22
Recreation.		
General	27 18	
Trees and shrubs	1 69	28 87
Medbury.		
General	27 16	
Trees and shrubs	54 62	81 79
City Hall Lawn.		
General	9 00	
Walk (cement)	152 41	161 41
Voigt.		
General	720 07	
Trees	60 00	780 07
Crawford.		
General	20 72	
Trees and shrubs	17 50	38 22
Second Avenue.		
General		203 11
Boston.		
General	552 55	
Trees and shrubs	99 10	651 65
Opera House Lawn.		
General		29 32
Total city parks improvements,		7,439 03

RECAPITULATION.

Park and Boulevard Fund.

	MAINTENANCE.	IMPROVEMENTS.
General maintenance and improvements....	$46,438 06	$18,768 38
Belle Isle, " " "	35,350 87	36,433 24
Boulevard, " " "	11,120 95	5,211 75
Palmer, " " "	5,001 86	10,172 40
Clark, " " "	1,926 38	4,181 47
City parks, " " "	8,162 98	7,439 03
	$108,001 10	82,206 27
Maintenance.....		108,001 10
Total expenditure,		$190,207 37

Park and Boulevard Fund, balance July 1, 1900.....	4,682 63
" " " " receipts...	194,702 61
	199,385 24
Expenditures.....	190,207 37
Cash balance, June 30, 1901.....	$9,177 87

Park Improvement Fund.

Balance, July 1, 1900.....	$149,567 15
Expenditures	1,439 22
Cash balance, June 30, 1901.....	$148,127 93

Park and Boulevard Fund.

Balance July 1, 1901, Distributed as Follows:

Administration, for lineolium, etc.....	$163 87
Engineering department, for transit.....	198 00
New green-houses, balance on contract and other work.....	1,445 00
Belle Isle maintenance, for new platform skating pavilion ...	250 00
Bridge No. 12, for balance of contract.....	800 00
" " 10, " " " " and other work.....	4,000 00
Palmer park, for water connection, etc	1,046 00
Grand Circus park, for fountain, etc.....	275 00
Washington parkway, for fountain, etc.....	1,000 00
Total.....	$9,177 87

PARK AND BOULEVARD SYSTEM.—(Expenditures.)

COMPILED FROM CITY RECORDS.

General Maintenance includes administration, tools, nursery, greenhouse, barns, horses and vehicles and general improvements.

Year.	MAINTENANCE.						IMPROVEMENTS.						TOTALS.		GRAND TOTAL.
	GENERAL inc. Gen'l Imp.	BELLE ISLE.	PALMER PARK.	CLARK PARK.	SMALL PARKS.	BOULEVARD	BELLE ISLE.	PALMER PARK.	CLARK PARK.	SMALL PARKS.	BOULEVARD.	BOULEVARD Right of Way.	MAINTENANCE.	IMPROVEMENTS.	
1854	On account of change in fiscal year the item in 1878 is for 17 months and in 1896 it is for 18 months.			Included in Maint. of Small Parks from 1890 to 1899.	$1,869 75		First item is for purchase of the Park.		First item is for purchase of the Park and was paid from the general city fund.	Improvements from 1854 to 1889 are included under head of Maintenance.		$3,792.14 of the $4 600.00 in 1899 was paid from city contingent fund.	1,869 75		$1,869 75
1855					167 98								167 98		167 98
1856					1,163 36								1,163 36		1,163 36
1857					934 29								934 29		934 29
1858					268 45								268 45		268 45
1859					181 46								181 46		181 46
1860					185 74								185 74		185 74
1861					1,915 14								1,915 14		1,915 14
1862					2,862 65								2,862 65		2,862 65
1863					1,981 15								1,981 15		1,981 15
1864					2,391 69								2,391 69		2,391 69
1865					1,324 58								1,324 58		1,324 58
1866					2,686 53								2,686 53		2,686 53
1867					1,945 00								1,945 00		1,945 00
1868					1,433 12								1,433 12		1,433 12
1869					1,344 98								1,344 98		1,344 98
1870					2,351 93								2,351 93		2,351 93
1871					4,333 36								4,333 36		4,333 36
1872					3,345 99								3,345 99		3,345 99
1873					2,111 38								2,111 38		2,111 38
1874					3,509 83								3,509 83		3,509 83
1875					3,368 21								3,368 21		3,368 21
1876					6,024 08								6,024 08		6 024 08
1877					2,666 24								2,666 24		2,666 24
1878					2,180 04								2,180 04		2,180 04
1879		$1,415 50					$200,000 00						1,415 50	$200,000 00	201,415 50
1880					1,750 04		202 15				$13 08		1,750 04	215 23	1,965 27
1881		900 43			1,612 76						15 82		2,513 19	15 82	2,529 01
1882	$2,410 98	1,948 62			2,189 11		10,144 99				1,964 18		6,548 71	12,109 17	18,657 88
1883	3,060 55	18,043 30			1,606 58		16,927 71				337 72		22,710 43	17,265 43	39,975 86
1884	2,905 83	13,519 69			2,612 43		10,264 45				6,851 55		19,037 95	17,116 00	36,153 95
1885	2,094 70	3,875 54			2,163 50		5,873 41				20,560 08		8,133 74	26,433 49	34,567 23
1886	3,374 76	13,917 61			2,224 96		11,386 02				16,787 67		19,517 33	28,173 69	47,691 02
1887	3,431 11	45,981 99			2,227 75		59,923 47				24,710 36		51,640 85	84,633 83	136,274 68
1888	7,105 67	21,000 34			2,837 92		48,066 62				11,848 93		30,943 93	59,915 55	90,859 48
1889	8,501 98	21,487 55			2,155 92	$5,149 73	59,562 30				1,423 71		37,295 18	60,986 01	98,281 19
1890	10,860 90	25,646 86			5,212 50	7,501 60	117,629 88		$46 000 00	$2,782 79	2,779 36		49,221 86	169,192 03	218,413 89
1891	10,256 04	42,993 96			10,216 77	16,389 66	85,323 70		6,123 04	7,803 99	30,223 23	$99,477 84	79,856 43	228,951 80	308,808 23
1892	14,899 96	43,798 60			13,901 23	11,411 85	34,393 96		4,265 15	553 75	265,549 48	108,982 40	84,011 64	413,744 74	497,756 38
1893	31,374 27	43,593 02			7,385 39	4,570 67	96,602 05		2,478 06	3,419 61	195,640 52	842 45	86,923 35	298,982 69	385,906 04
1894	30,839 92	31,079 12	$393 19		7,828 59	12,464 92	106,715 95	$1,882 84	2,954 55	3,251 04	103,589 79		82,605 74	218,394 17	300,999 91
1895	29,384 79	32,769 67	1,066 78		6,104 17	10,972 25	41,598 28	7,503 41	2,406 80	2,170 78	31,018 72	4,739 06	80,297 66	89,437 05	169,734 71
1896	36,502 16	48,222 16	3 163 13		11,822 10	12,998 76	36,755 01	10,246 98	2,375 24	4,806 22	53,833 53	33 00	112,708 31	108,049 98	220,758 29
1897	28,587 98	42,477 04	2,612 04		10,464 03	10,050 59	1,576 91	18,415 17	2,543 93	6,327 26	20,071 46	800 00	94,191 68	49,734 73	143,926 41
1898	27,142 25	37,500 33	4,003 55		10,057 85	13,195 74	15,678 32	11,132 56	2,729 05	5,139 41	10,841 33	550 00	91,899 72	46,070 67	137,970 39
1899	44,924 17	36,737 22	4,325 83	$446 48	7,663 63	10,009 01	23,966 98	7,083 17	4,732 83	4,278 20	15,344 32	4,600 00	104,106 34	60,005 50	164,111 84
1900	65,206 44	35,350 87	5,001 86	1,926 38	8,162 98	11,120 95	36,433 24	10,172 40	4,181 47	7,489 03	5,211 75		126,769 48	63,437 89	190,207 37
	$362,864 46	$562,259 42	$20,566 38	2,372 86	$172,747 14	$125,835 73	1,019,025 40	$66,436 53	$80,790 12	$47,972 08	$818,616 59	220,024 75	$1,246,645 99	$2,252,865 47	$3,499,511 46

Park and Boulevard System.

Bonds Issued and Estimates Asked and Allowed.

Total bonds issued for Belle Isle Park	$915,000 00
" " " " Grand Boulevard	730,000 00
Total	$1,645,000 00

Estimates Under Act of May 8, 1889.

Year.	Asked.	Allowed.
1889	$231,000 00	$101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428,661 00	173,502 00
1901	454,893 00	161,265 00
	$3,059,374 00	$1,623,943 00

Miscellaneous Information to Answer the Many Inquiries Made.

Belle Isle Park is 2 miles long.
" " " has 5½ miles shore drive.
" " " has 14¼ miles of driveway.
" " " has $5\frac{1}{10}$ miles gravel walks.
" " " flag staff is $146\frac{8}{100}$ feet in height.
Park and Boulevard system has 15½ miles of gravel walk.
" " " " has $38\frac{1}{10}$ miles of roadway.

AREA OF LAKES.

Lake Takoma,	Belle Isle Park,	15.30	acres.
" Muskoday,	" " "	34.23	"
" Okonoka,	" " "	22.56	"
" Higinio,	Palmer Park,	4.58	"
" Frances,			
Clark Park Lake		.66	"
Voigt Park Lake		.37	"

PRINCIPAL IMPROVEMENTS.

Lakes.

Lake Takoma, Belle Isle Park, 1887	$21,981 75	
" " " " " deepened, 1892	5,444 55	
" " " " " " 1900	7,019 43	$34,445 73
Lake Okonoka, Belle Isle Park, 1888 9		58,658 73
" Muskoday " " " 1893		45,055 99
Lily Pond, " " " 1890		2,990 15

Canals.

Loop Canal, Belle Isle Park, 1883	11,182 30
Nashua " " " " 1890	37,741 97

Water Mains.

Water mains, Belle Isle Park, 1894-5-6.....	$29,623 52

Docks.

Sheltered ferry dock, Belle Isle Park, 1894.....	12,520 65

Bridges.

Stone Bridge No. 1—Over North Inlet to Loop Canal, on Pleasure Place, Belle Isle, 1894.....	5,438 25
Steel Bridge No. 2—Over Loop Canal, near Muir Fountain, Belle Isle, 1892.....	5,962 53
Stone Bridge No. 3—Over Marsh Run, on Muse Road, Belle Isle, 1894.....	8,205 80
Stone Bridge No. 5—(Foot); over Marsh Run, Belle Isle, 1894.....	1,400 00
Steel Bridge No. 6—Over Loop Canal, on Central avenue, Belle Isle, 1892.....	14,301 43
Stone Bridge No. 7—Over Loop Canal, South of Bridge No. 6, Belle Isle, 1892-3.....	5,852 72
Stone Bridge No. 8—Over outlet at S. W. corner of Belle Isle, 1894.....	5,462 34
Stone Bridge No. 9—(Foot); over outlet to Lake Takoma, Belle Isle, 1894-9.....	1,732 61
Stone Bridge No. 10—Over Canal at head of Takoma Lake, built in 1900-1901.....	2,962 52
Stone Bridge No. 12—Over South Inlet to Nashua Canal, built in 1900-1901.....	2,777 79
Steel Bridge No. 14—Over Nashua Canal, at Shelter Pavilion, Belle Isle, 1899-1900.....	4,538 35
Stone Bridge No. 19—Over South Inlet to Lake Muskoday, Belle Isle, 1894.....	4,578 47
Stone Bridge No. 20—Over North Inlet to Lake Muskoday, Belle Isle, 1894.....	3,999 62
Stone Bridge No. 21—Over outlet to Lake Muskoday, 1894.....	3,559 77
Wooden Bridges Nos. 4, 11, 13, 15, 16, 17, 18 and 22 were built many years and are now worthless.	
Stone Bridge in Clark Park, 1893.....	609 60
Subway, Milan Arch, Boulevard, 1895-9.....	44,786 61

Buildings.

Casino, Belle Isle, 1886-7-8.	$19,066 45
Boat House, Belle Isle, 1887	5,587 28
Engine House, Pavilion and Earth Closets, Belle Isle, 1887	5,966 84
Green House, Belle Isle, 1899-1900	11,459 52
Music Pavilion, Belle Isle, 1890-1	2,545 30
Bath House, Belle Isle, 1894	16,179 88
Horse Shelter (old market bldg.), Belle Isle, 1894	3,110 06
Skating Pavilion, Belle Isle, 1893-4	8,415 40
Brick Barn, Belle Isle, 1895	12,053 21
Women's Toilet (brick) Belle Isle, 1895	1,085 49
" " (stone), " " 1896	2,208 56
Picnic Pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Shelter Pavilion, Belle Isle, 1899	12,828 72
Police Station (Park Board's Share) Belle Isle, 1892	2,000 00
Women's Toilet, Clark Park, 1893	4,205 59
Men's " " " 1899-1900	2,295 00
Shelter Pavilion, " " 1895	1,672 00
Picnic Pavilion, Palmer Park, 1895	1,167 53
Casino, Palmer Park, 1896 99	11,799 73
Log Waiting Room, Palmer Park, 1900	1,212 07

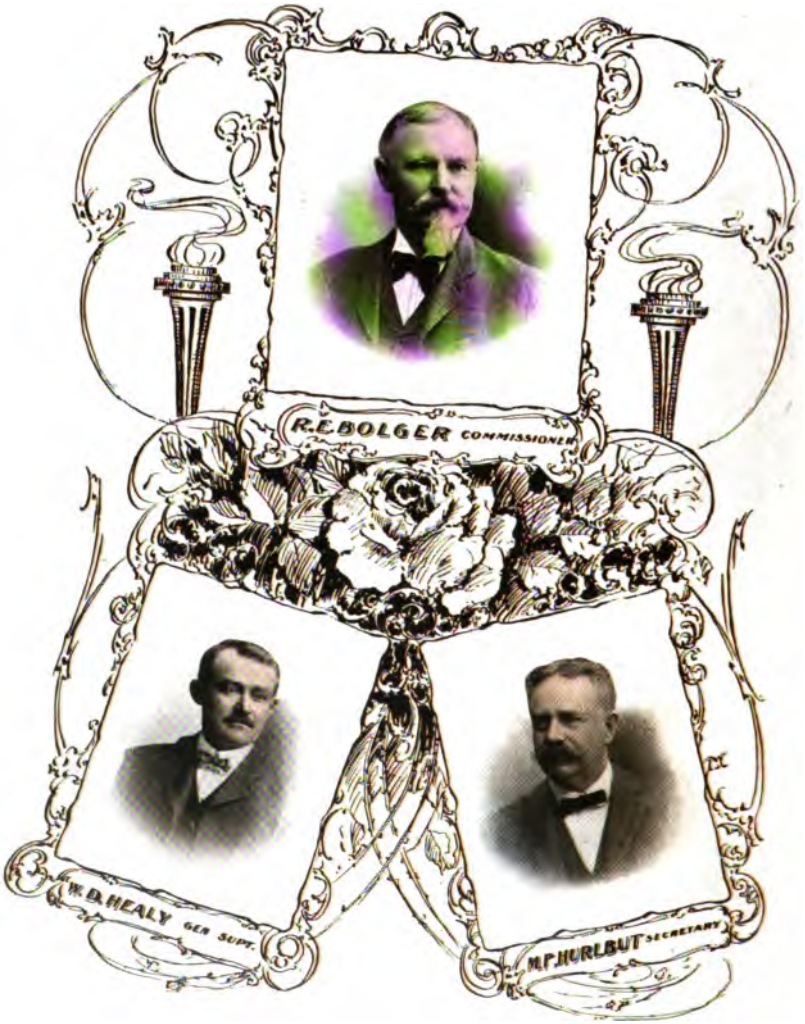
Miscellaneous.

Bear Den, Belle Isle, 1895-6	3,272 40
Animal Cages, Belle Isle, 1896-9	5,824 28
Speeding Track, " " 1890-1	3,015 85
Fountain, Capitol Park, 1896	2,351 83
" Stanton Park, 1896	670 00
Horse Drinking Troughs, Boulevard, 1896	1,606 38

Park and Boulevard System.

Names.	Locations.	Acreage.
Belle Isle	Island in Detroit River (Survey 1899)	707.000
Boston Park Way	Boston Boulevard	2.440
Chicago Park Way	Chicago Boulevard	2 440
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Campau	Campau, Mullett and Clinton Sts.	1.199
Capitol	Griswold, State and Roland Sts	.510
Cass	Cass Ave., Ledyard and Bagg Sts.	4.966
City Hall	Woodward Ave., Fort and Michigan	.550
Clark	Dix, Scotten, Howard and Clark Sts.	24.731
Clinton	St. Antoine, Mullett and Raynor Sts.	1.068
Crawford	Fifth and W. High Sts.	.746
Elton	Fifth and Orchard Sts.	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North Sts.	.448
Macomb	17th, 18th and Rose Sts.	.557
Medbury	Medbury Ave., John R. to Rivard Sts	3.440
Opera House	Woodward and Monroe Aves.	.174
Owen	Jefferson Ave. and River	3.900
Palmer	Woodward Avenue	140.410
Perrien	Chene, Grandy, Hancock and Warren Aves.	5.180
Recreation	Brush, Brady to Alexandrine Ave.	1 290
Second Ave. Park Way	Second Ave	1.110
Shakespeare Park Way	Shakespeare Esplanade	1.640
Schiller Park Way	Schiller Esplanade	1 640
Stanton	17th, 18th and Porter Sts.	.695
Voigt	Schiller and Shakespeare Esplanades	9.601
West	State and Park Place	.744
Washington	Washington, Michigan to Park St.	2.862
Boulevard		212.837
	Total (28 Parks and The Boulevard)	1,139.454
Boulevard mileage		11.29

THIRTEENTH ANNUAL REPORT of the COMMISSIONER of PARKS and BOULEVARDS of the CITY of DETROIT for the YEAR ONE THOUSAND NINE HUNDRED and TWO


R.E.BOLGER COMMISSIONER
W.D.HEALY GEN SUPT.
M.F.HURLBUT SECRETARY

THIRTEENTH ANNUAL REPORT

. . . OF THE . . .

COMMISSIONER

. . . OF . . .

PARKS AND BOULEVARDS

CITY OF
DETROIT,
MICHIGAN

From
JULY 1, 1901
. . *to* . .
JUNE 30, 1902
Inclusive.

R. E. BOLGER, *Commissioner.*
M. P. HURLBUT, *Secretary.*
W. D. HEALY, *Gen'l. Supt.*
F. O. RAY, *Engineer.*

NASHUA CANAL—BELLE ISLE PARK.

THE PARKS

THE CITY, with its hustle and bustle, is without regard for rest or season. The home, the office and the work-shop life is one having but little variation, and it is for the parks to give rest and pleasure to the people, where they must go to catch the first invigorating breath of spring; in summer, to watch nature's full development, redolent with the sweet scents of the forest, field and flower; in autumn, to admire her ripening glories and in winter to realize her full solitude and deep sleep, all of which are conducive to the mental, moral and material welfare of a great city.

It is in the parks that nature, untrammeled and unfettered, marks the seasons, and her children, her birds, her trees and her flowers exemplify and proclaim the handiwork of the Divine Creator.

PARK COMMISSIONERS

1871 - 1902

Park Commissioners Under the Act of 1871.

G. V. N. LOTHROP, ROBERT P. TOMS, A. SMITH BAGG,
JOHN J. BAGLEY, MERRILL I. MILLS, WM. A. BUTLER,
CHAS. I. WALKER, CHAS. C. TROWBRIDGE.

Park Commissioners Appointed in 1879 by Mayor Langdon.

THEO. CHAPOTON, W. K. MUIR, JOHN PRIDGEON, JR.
AUGUST GOEBEL, E. F. CONELY, W. B. MORAN.

Board of Belle Isle Park Commissioners Organized September 6, 1881.

NAMES.	Appointed.	Expiration of Terms.	REMARKS.
MERRILL I. MILLS	Aug. 30, 1881	Aug. 31, 1882	
AUG. MARXHAUSEN	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
WM. A. MOORE	Aug. 30, 1881	Aug. 31, 1884	Re-appointed.
JAS. MCMILLAN	Aug. 30, 1881	Aug. 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
WM. B. MORAN	Sept. 1, 1882	Aug. 31, 1886	
AUG. MARXHAUSEN	Sept. 1, 1883	Aug. 31, 1887	
DEXTER M. FERRY	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term Jas. McMillan.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
WM. A. MOORE	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
JOS. A. MARSH	Jan. 22, 1886	Aug. 31, 1889	
ELLIOTT T. SLOCUM	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.
FRED. L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888. F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug. 1, 1888	Aug. 31, 1890	Filling unexpired term of F. L. Seitz, resigned.
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, abrogating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional Commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS and WM. B. MORAN, who were succeeded by the following

Commissioners of Parks and Boulevards:

NAMES.	Appointed.	Expiration of Term.	REMARKS.
GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTONE, JR.	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21, 1889	May 31, 1893	
FRED. A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May 3, 1892	May 31, 1894	Resigned Nov. 15, 1892. James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED GUENTHER	Aug. 1892	May 31, 1895	
WM. LIVINGSTONE, JR.	May, 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug. Marxhausen appointed to fill unexpired term.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
AUG. MARXHAUSEN	Nov. 28, 1893	May 31, 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingstone, Jr.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5, 1894	May 31, 1898	Resigned March 1, 1896. A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1896	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
JAS. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VAN LEYEN	June 6, 1898	May 31, 1902	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28, 1898	May 31, 1901	Resigned April 11, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904	

Under the act of May 4, 1901, abrogating the Commissioners of Parks and Boulevards, The Commissioner of Parks and Boulevards was created.

Commissioner of Parks and Boulevards:

NAME.	Appointed.	Term.
R. E. BOLGER	May 4, 1901	June 1, 1901, to May 31, 1905.

LILY POND—BELLE ISLE PARK.
WINTER AND SUMMER.

COMMISSIONER of PARKS and BOULEVARDS

To the Honorable, the Common Council:

GENTLEMEN:—In conformity to the requirements of the city charter, I herewith submit to your honorable body the thirteenth annual report of the park and boulevard commission, showing the work accomplished and the money expended in the improvement and care of the public parks and boulevards under my charge, for the fiscal year just past, viz. July 1, 1901 to June 30, 1902, both days inclusive.

In general, the improvements have been in accordance with the appropriations.

I have done my utmost to keep the parks and boulevards to the highest possible standard of maintenance, although the money allowed for the purpose was insufficient to care for so large a park system properly. Especially is this true of Belle Isle park.

Acquisitions: At the east side of and adjoining Belle Isle bridge approach, a strip of land fifty feet wide on Jefferson avenue, and extending south to the channel bank of the river, was acquired by condemnation proceedings for the sum of $49,165.83, which amount was paid from the contingent fund of the city. In purchasing this land, the

building of a retaining wall to protect the banks and keep the dirt on park property from encroaching on private property was avoided, besides broadening the bridge approach to Belle Isle park.

The brick building formerly known as the Savage building, now standing on this property at Jefferson avenue, I purpose to remodel into a waiting room, adding a lavatory for women. The building when completed will be known as "Park Rest," and will serve as a shelter in case of storm, and for a park phaeton waiting room. The other large frame building on this property will be sold at auction to the highest bidder.

Clark park was enlarged by adding 6.87 acres on the south side, bounded by the Park, Scotten, Lafayette and Clark

DISPLAY FOUNTAIN—CLARK PARK.

avenues. The award for this extension, $40,281.40, was fixed by condemnation proceedings: $281.40 was paid from the contingent fund of the city, and the remainder, $40,000, by

bond issue. My purpose is to improve this addition for athletic sports by preparing foot ball, base ball grounds, etc., and by planting its borders, Clark, Lafayette and Scotten avenues.

A parcel of land was acquired and named Atkinson park by your honorable body, in the sixteenth ward, containing 13.47 acres, bounded by Thirty-fourth street, Wesson, Devereaux and McGraw avenues, by purchase, for $41,400, $400 being paid from the contingent fund of the city, and $41,000 by bond issue. It was my ambition to put in the water pipes, grade and do certain planting on this park during the coming fiscal year, but owing to the lack of an appropriation no work can be done there.

The Parker Estate Company, Limited, et. al. deeded to the city a strip of land in the center of Parker avenue, between Jefferson avenue and Champlain street, 370 feet long and 44 feet wide, which is now known as Parker parkway.

The extension of the Western Grand Boulevard from Fort street to the Detroit river, about one-third of a mile in length, and covering an area of nearly eight acres, was determined upon, and the property acquired by condemnation proceedings, the court awarding $106,208.67, $100,000 of which was paid by bond issue, and the remainder, $6,208.67, from the contingent fund of the city. With this addition the Grand Boulevard extends from the Detroit river at Belle Isle bridge, in a circuitous route about the city, some eleven and a half miles to the river. The money to pay the award was placed in my hands February 20, 1902. I paid all the awards between that time and March 29, and have sold and had removed twenty-nine houses and other buildings, located on the property, for $4,050, depositing the money in the city treasury.

The dock on this property fronting the river should be repaired, and the cellars where the houses were removed should be filled up and graded, but owing to the lack of appropriation nothing can be done. The improvement of this section

of the boulevard cannot be accomplished until the character of the railroad crossing has been decided upon.

Engineering Department: This department has accomplished much in carrying forward the work of collecting data of the park system, and recording it in book form for future reference, in addition to the regular work performed by the engineering department.

Barns, Horses and Vehicles: This department is vital to the entire park and boulevard system, both as to the maintenance and improvements, and should be kept at a high standard, as but little can be accomplished economically without its aid. There have been added to the

ICE WATER DRINKING FOUNTAIN—CLARK PARK.

equipment during the fiscal year four large sprinkling wagons and a two-horse truck with windlass, all of which have been of great service.

There were in possession of the commission on July 1, 1901, forty-five horses. During the year three horses died, and eight disabled horses were sold for $610.00. Fourteen horses were purchased at a cost of $2,135, leaving the total number of horses in possession of the commission June 30, 1902, at forty-eight.

BEECH TREE—PALMER PARK.

The number of days' work performed by horses owned by the commission during the past fiscal year was 14,760, which, if the horses had been hired, would have cost $14,760. In addition to the above, horses were hired for 788 days. The year's maintenance in this department cost for barns and horses $14,889.08, for vehicles $1,110.05—a total of $15,999.13.

Nursery Department: During the past year the nursery has shown much improvement and is now well established.

During the spring planting, 2,035 well-rooted, thrifty shrubs, a product of the nursery, were planted on various portions of the park system. There are now in the nursery, in excellent condition, 27,732 shrubs, 14,064 well-rooted trees and evergreens, 1,028 hardy perennials, making a total of 42,824, in addition to which there were rooted and grafted in

the propagating house during the winter, 32,227 cuttings, 400 grafts, 5,173 layers, 317 roses, 1,000 seedlings, all of which have been set into nursery rows and are now in a healthy condition, making a total of 81,941 plants now in the nursery.

During the winter and spring, in addition to the regular work of the propagating house, there were raised 14,585 bedding plants, including geraniums, coleus, begonias, etc.

Greenhouse Department: The old greenhouses are fast decaying and must soon be abandoned. The new greenhouse plant, when completed, will contain a range of ten houses, with a commodious service building, well adapted to the requirements of this department where the work of propagating can be done economically. The service building and three of the ranges were built in 1900 at a cost of $11,059.52, and one new range was added this fiscal year, the contract price being $3,925. It was hoped that an appropriation would be allowed sufficient to permit the addition of two houses this coming year, and thus in a few years the plant would be complete.

Carpenter Department: This department is a necessary one to the park and boulevard system, as many repairs are required to the wooden buildings, bridges, rustic stands, seats, tables, swings, vehicles, etc., and often on short notice. In addition to the repairs, much new work is done by this department.

Band Concerts: The open air band concerts are growing in favor and are enjoyed by many thousands of people, who congregate daily to hear them during the season, which is from June to September. My aim is to have them varied to please all classes, but at the same time to have as high and elevating class of music as is consistent

with the money allowed for the purpose. Last season there were given 119 concerts, thirteen per week from July 1 to September 2, the schedule being as follows:

DAYS:	AFTERNOON:	EVENING:
Monday.	Belle Isle.	Clark.
Tuesday.	Palmer.	Belle Isle.
Wednesday.	Clark.	Cass.
Thursday.	Belle Isle.	Belle Isle.
Friday.	Washington.	Clark.
Saturday.	Clark.	Belle Isle.

The Sunday afternoon concerts were alternated between Belle Isle and Clark parks, and a Labor Day concert was given both afternoon and evening on Belle Isle park.

Children's Day: The annual children's day was held on Wednesday, June 4, at which time there were distributed among the children one hundred and twenty-five gross of flags as souvenirs. There were estimated to be present not less than one hundred thousand. An enjoyable entertainment was furnished for the children, which consisted of fancy dances upon a platform erected for the purpose, and chorus singing led by 400 children, etc.

Children's Playgrounds: Much benefit is being derived in a number of cities by providing play grounds for children, where they can find recreation during vacation or after school hours, thus keeping them from the streets. I am informed that Boston, New York and Philadelphia each has a number of play grounds for children, and the authorities believe great good has been accomplished. The movement has extended to Cleveland, Pittsburg, Albany, Providence, Baltimore, Newark, New Haven, Cincinnati, Louisville, St. Louis and Toledo. I also have been informed that some effort has been made in our own city in this direction, and if a helping hand could be extended, it would accomplish much good. It would seem that the school grounds might,

CHILDREN'S DAY—BELLE ISLE PARK—JUNE 5, 1902.

by some arrangement, be thrown open to the children during the vacation period.

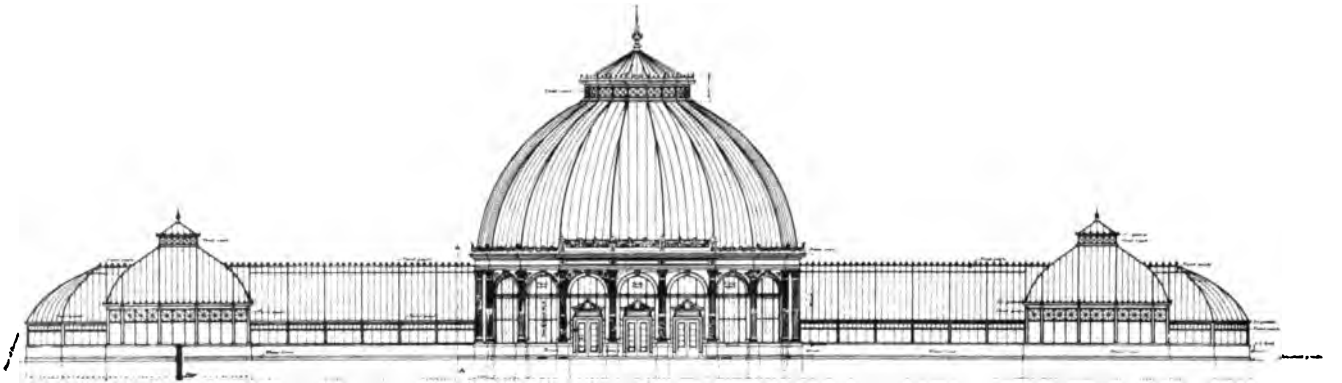
Shade Trees: Shade trees on public streets are of vital importance to our city, and should be given care if their beauty is not to be marred by the injurious insect pests which are making great inroads upon many of the trees. My object in calling your attention to this important subject is that if, in your judgment, you think they should be protected, your honorable body may take such action as will lead to that end.

Aquarium and Horticultural Building: The detailed plans and specifications for the aquarium and horticultural building for which bonds for $150,000 were issued, were accepted and adopted on July 15, 1901, and bids for the construction of the building, including the heating and power plant, were received on August 19, 1901, and the following contracts awarded to the lowest bidders in each instance, the condition being that the building should be finished complete and ready for fittings by August 16, 1902:

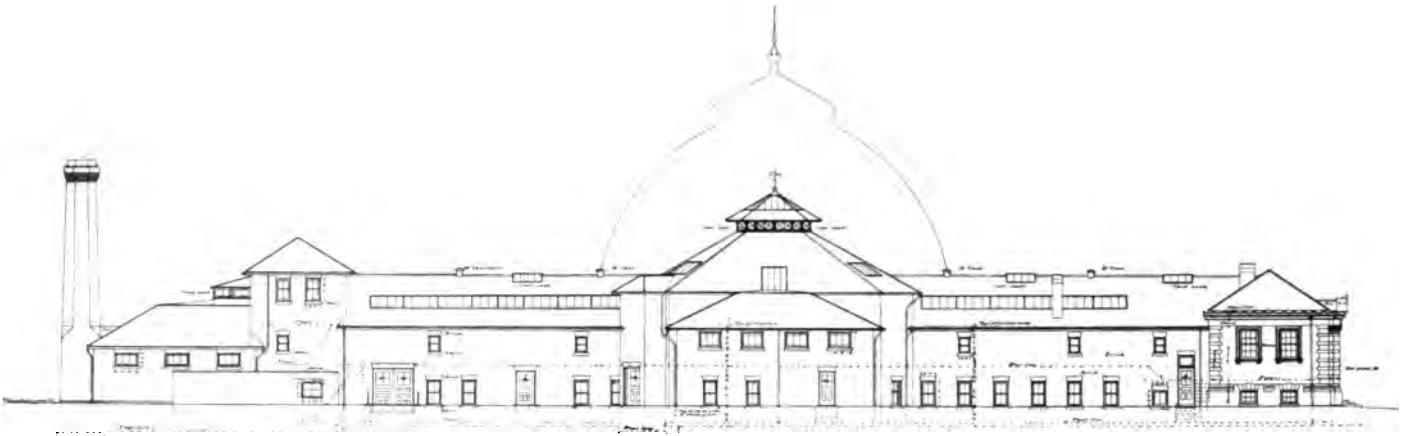
Webster, Harrigan & Reid	Heating and power plant	$ 24,172 00
Vinton & Co	Carpenter and joiner work	23,317 00
Henry B. Lewis	Structural steel and iron work	14,918 12
H. Carew & Co	Mason work	13,124 07
Wm. Diedrich	Glazing and painting work	10,750 00
P. Christa & Sons	Tile and marble work	7,966 07
Voigt & Sexauer	Cut stone and terra cotta work	5,275 00
Schillinger Bros	Fire proofing and concrete work	2,800 00
Jacob Zerga	Plumbing work	1,950 00
John Hanley	Plastering work	1,350 00
Seidler-Miner Electric Co	Electric work	393 00
Gardner Elevator Co	Elevator	200 00
		$112,165 56

The architects are to receive the usual fee of five per cent. of the cost of the building.

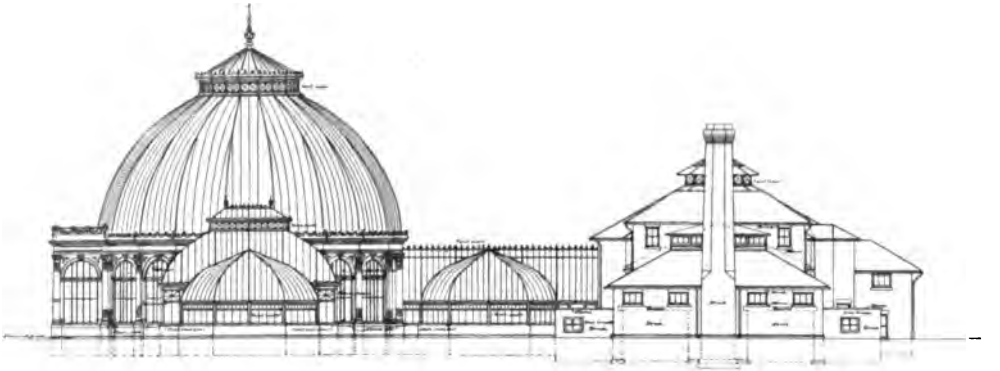
Plans and specifications for steel enameled aquarium tanks with fittings were approved and adopted on May 20, 1902.



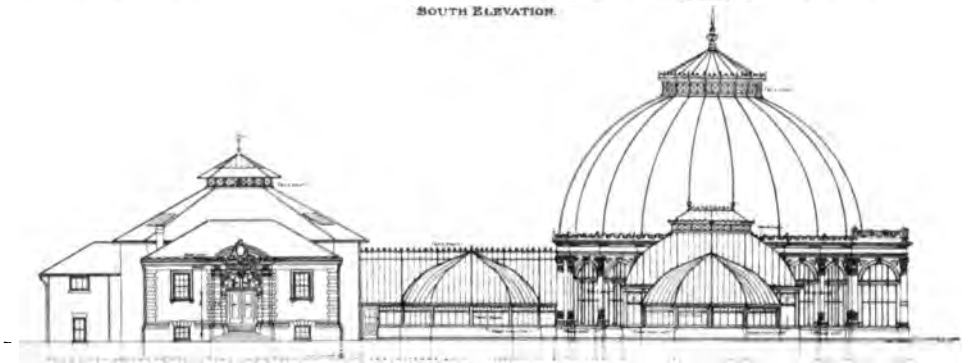
- WEST FRONT - HORTICULTURAL BLDG. -



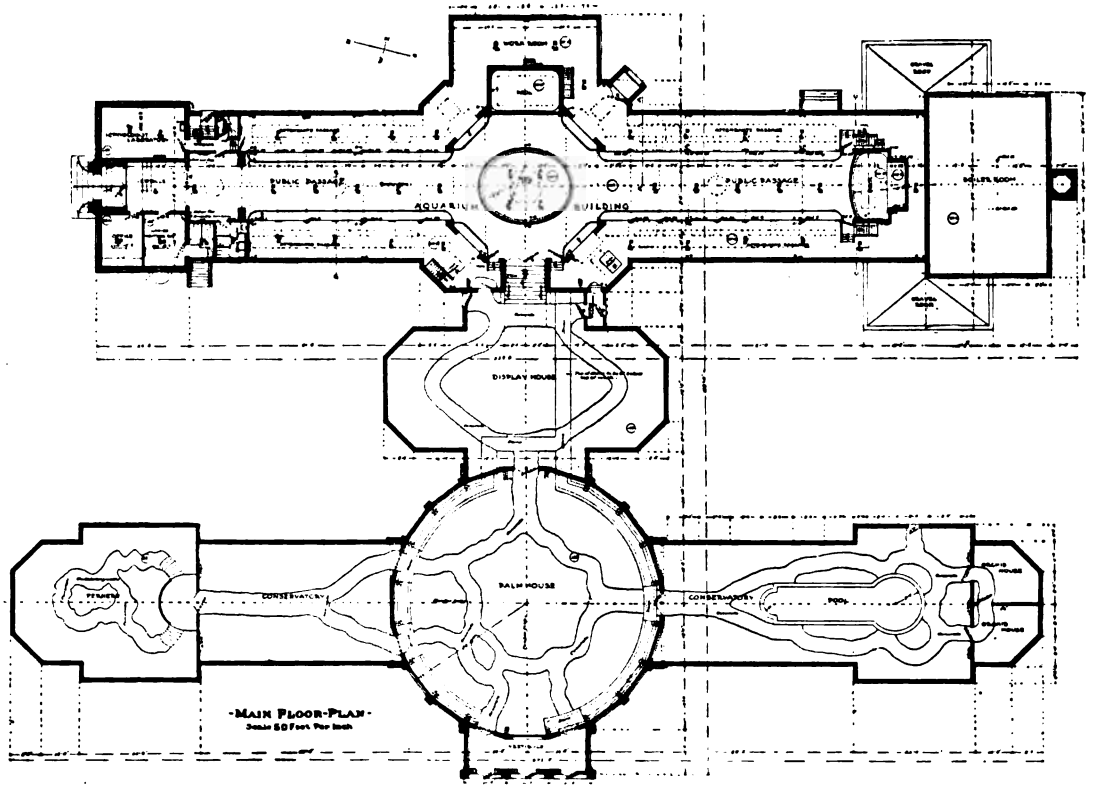
EAST FRONT - AQUARIUM BLDG.



SOUTH ELEVATION



NORTH ELEVATION



MAIN FLOOR PLAN.

The main public passage or exhibition hall of the aquarium will be 18 feet wide by 174 feet in length, with a granolithic floor. The walls and arched ceilings are to be of opalite tile. Along the sides of the public passage will be forty-four exhibition tanks; sixteen tanks three feet long, four tanks four feet long, twenty tanks six feet long, and four tanks eight feet long. In addition to the tanks, there will be one large central pool and two side or wall pools. One

AQUARIUM AND HORTICULTURAL BUILDING UNDER CONSTRUCTION.
BELLE ISLE PARK.

section will be arranged for salt water fish, one section for trout and other fishes which require water at a low temperature, and the remainder will be for fishes from the inland lakes and tributary streams. The aquarium will contain an ichthyologist's laboratory, which will be connected with the attendants' passage or work room, where the fish are cared for, being back of the tanks and out of sight of visitors.

The horticultural building will have one large circular palm house in the center of the building, with a dome eighty feet high for the tall specimens of palms. At each side of the palm house are the permanent show houses for other

varieties of palms, etc. At one end will be a fernery where it is proposed to exhibit all species of ferns possible, and at the other end will be an orchid house especially adapted to their care. In the rear, back of the center circular palm house, will be an exhibition house, in which will be shown

LAKE OKONOKA—BELLE ISLE PARK.

flowers in bloom, of different varieties of the same plant, etc. This house will also connect the horticultural building with the aquarium.

The heating and power plant will be situated in the south end of the aquarium building. The heating of the combined building will be done by a forced hot water system. The plant is of a capacity that will furnish heat for the new greenhouses, the barns, Inselruhe, casino, skating pavilion, animal house (when built) and for other buildings where heat

may be required. The hot water is forced through the pipes by a 25 h. p. pump, causing a uniform flow of water at all times, thus regulating the heat. The plant will be provided with stokers and forced draft which will permit of the use of a cheap quality of coal and at the same time reduce the smoke to a minimum.

Belle Isle Park: There was built one permanent bridge, known as bridge No. 11, on Inselruhe avenue, over the inlet to lake Takoma; contract price being $3,105.00. $1,000.00 was appropriated for a music pavilion, but I found that sum insufficient to erect a building in keeping with this park, and have therefore kept the money intact and asked that a sufficient amount be added thereto to erect a suitable building. The same was also true of the money allowed for a storage cellar.

Two permanent ice water drinking fountains were built of tufa rock near the south Belle Isle bridge approach, just north of Marsh Run bridge on Muse Road and in the zoological grounds near the ostrich shelter.

One large phaeton was purchased during the past fiscal year, which is of material assistance in handling the large crowds which visit Belle Isle park.

The athletic field was put in shape so far as the money allowed would permit.

Lake Takoma was deepened with the amount of appropriation allowed.

There was $2,500.00 appropriated for cleaning Loop canal. When the work was begun it was found that the canal near the boat house was in a very bad condition, the bottom being muck, and therefore it became necessary to have it dredged, which has been done from the channel bank near bridge No. 2, and when the whole length of the canal is deepened and cleaned, it will undoubtedly make a current which will better its condition for a long time to come.

The roads were resurfaced and foundations put in where required so far as was possible with the funds allowed for the purpose.

Minor improvements were made, such as laying sprinkling pipes in the lawns, rip-rapping banks of lagoons, installing laundry machinery, new swings, rustic seats, stands, etc.

Improvements to the zoological department were made in the way of erecting shelters for water animals and the addition of various animals, either by purchase or exchange.

BLACK-TAIL DEER—BELLE ISLE ZOO.

There seems to be no improvement more appreciated by the general public than the zoological department, which at the present time contains the following collection:

7	Alligators	Alligator Mississippienis.
3	Buffaloes	Bison americanus.
2	Bears, polar	Thalarctos maritimus.
1	" grizzly	Ursus horribilis.
1	" black	Ursus americanus.
2	Badgers	Taxidea americana.

1	Duck, wood	Aix sponsa.
1	" Mandrin	Aix galericulata.
21	Deer, Virginia	Cariacus virginianus.
2	" red	Cervus elaphus.
2	" brown fallow	Cervus dama.
2	" white fallow	Cervus dama.
2	" mule	Cariacus macrotis.
1	" black tail	Cariacus columbianus.
2	" Sambur	Cervus aristotelis.
2	" axis	Cervus axis.
8	Elk	Cervus canadensis.
1	Eagle, bald	Haliaetus lencocephalus.
1	" golden	Aquila chrysaetos.
1	Fox, red	Canis valpes fulvus.
10	Geese, wild	Branta canadensis.
3	" Poland	
5	Guinea fowl	Numida meleagris.
2	Guinea pigs	Caviidae cutleri.
1	Lynx, Canada	Lynx canadensis.
2	" bay	Lynx rufus.
1	Moose	Alces alce.
4	Ostriches	Struthio camelus.
8	Owls, horned	Bubo virginianus.
12	Prairie dogs	Cynomys ludovicianus.
6	Pheasants, Amherst	Chrysolophus Amherstiae.
3	" golden	Chrysolophus pictus.
8	" ringnecked	Phasianus torquatus.
4	Peafowls	Pavo cristata.
6	Raccoons	Procyon lotor.
9	Rabbits, English	Lepus cuniculus.
6	Swans, white	Cygnuo olor.
2	" black	Chenopis atrata.
1	Turkey, white	Meleagris gallopovo mexicana.
5	" bronze	Meleagris gallapavo mexicana.
2	Wolves, gray	Canis lupus.
5	" timber	Canis lupus.
1	" Coyotte	Canis latrans.
2	Zebu Cattle	Bos indicus.

Also a large number of quail, pigeons and squirrels at large on the park.

BROWN FALLOW DEER—BELLE ISLE ZOO.

AXIS DEER—BELLE ISLE ZOO.

A shelter for the deer family is a great necessity. It would permit of their better care and protection from the elements during the winter, and with the paddocks properly arranged would afford the sightseers a better view of the animals. At the present time there are eight varieties of the deer family on exhibition in the zoo.

An appropriation of $3,906 was allowed for repairing the present ferry dock, which will make it passable for two or three years. In the meantime, a new permanent ferry dock should be erected and ready for use when the old ferry dock is no longer safe.

MULE DEER—BELLE ISLE ZOO.

The skating pavilion is fast decaying, and a large amount of money must soon be expended on it or the building abandoned.

The casino, a wooden structure built in 1886, is inadequate for the present requirements of the park; it is also decaying rapidly along the sills by reason to their close proximity to the ground. I am much in favor of erecting a new permanent casino of stone, if possible, of such proportions that all visitors may be properly accomodated, and so situated that it will take the place of both the present casino and skating pavilion. By so doing, it could be kept open the year around,

while now the casino is practically closed during the winter months, owing to the fact that only skaters visit the park in the winter time.

The phaeton service was well patronized during the past fiscal year, there having been carried 153,715 passengers from Jefferson avenue to the casino; 117,757 passengers from the casino to Jefferson avenue, and 30,057 passengers around the park, a total of 301,527, for which $11,064.01 were received.

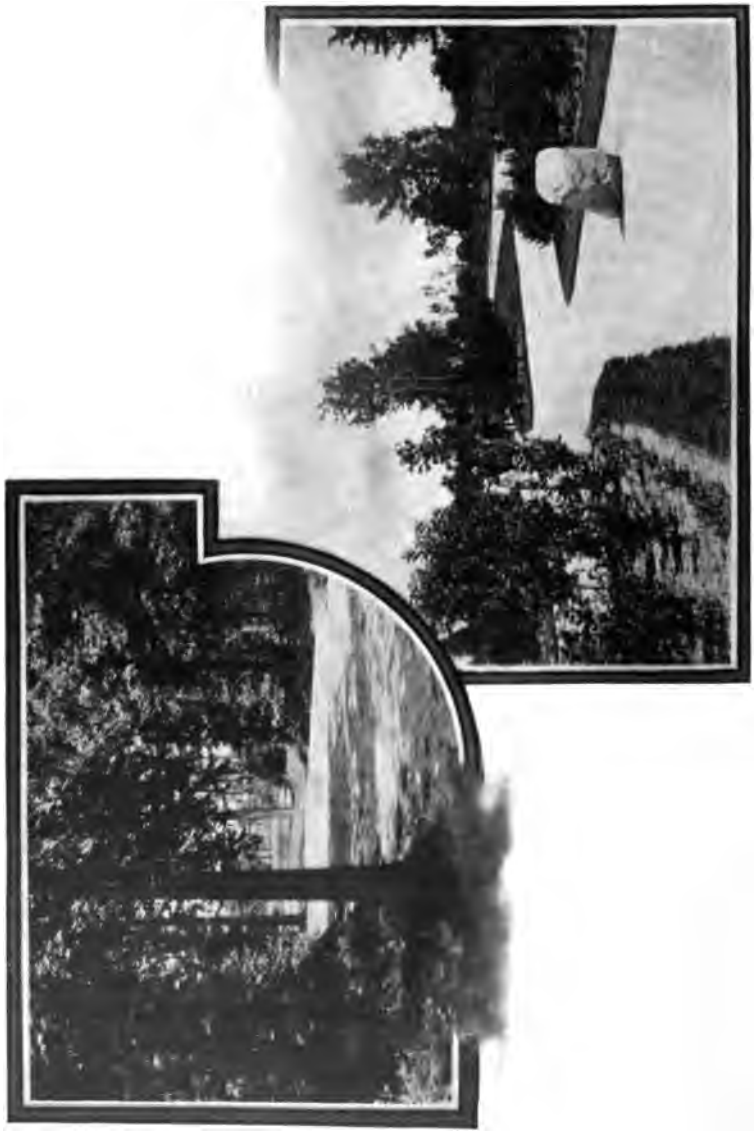
The bath-house is popular, as is shown by the record of the number of people who availed themselves of the bathing

VIRGINIA DEER—BELLE ISLE ZOO.

facilities offered. There were 4,863 female and 29,220 male bathers in the pay departments, and 12,121 male bathers in the free department during the season, or a total of 46,204 bathers. The receipts from this department were $2,581.30.

The maintenance of Belle Isle park has been conducted as economically as possible and consistent with the funds for the purpose and the high grade of maintenance demanded for a park of this size where such multitudes congregate.

There was harvested on Belle Isle park 3,000 tons of ice, at a cost of $658.42, for use at Belle Isle, Clark and other city parks.



NEW ROADWAY TO CASINO—PALMER PARK.

Many of the trees, especially the hickories, are dying for the lack of nourishment and care, which can only be provided by the expenditure of considerable money. Two hundred and fifty trees died during the past fiscal year. I asked in the last estimates for $1,000 for the care of the trees and planting new trees, but the amount was cut out, so little can be done to improve the condition. I would recommend a liberal appropriation for the care of old trees, and planting new ones.

Palmer Park: During the year, the south roadway, beginning at the intersection of the roadway leading north to the log cabin, was completed. Many large elm trees were planted along the main roadway, leading from the Woodward avenue entrance to the log cabin, which add materially to the beauty of the park, besides giving shade to pedestrians along the walk on the north side of the roadway.

Water from the city is sadly needed in this park, as the water now supplied is injurious to plant life. Arrangements have been made to connect the water system of the park with the water system of the city through the Highland Park-Woodward avenue mains, as soon as Highland Park village extends its mains to the six mile road.

To the arboretum at Palmer park were added a number of specimens, and it is hoped at an early date to have a complete collection of the trees and shrubs native to Michigan.

This park should be lighted by electricity, especially along the main thoroughfares. I do sincerely hope your honorable body will, at no distant day, provide through the public lighting commission a sufficient sum for the purpose, so that electricity may be substituted for kerosene oil in lighting the casino and other buildings.

The maintenance of Palmer park has been kept at a high standard and within the appropriation.

Clark Park: The improvements in this park consisted in deepening and cleaning the west lake, cementing the bottom and cobbling its border from the cement to a little above the water level, about twelve feet in width.

The roadway was widened between the two lakes, as its former narrowness made it dangerous to travel.

This park is in a thickly settled portion of the city and unusually large numbers of people avail themselves of its pleasures, hence a large amount is required for maintenance.

Owen Park: The improvements in this park have been executed in accordance with the appropriation. Portions of the park have been filled in and in some portions raised as much a four feet. A number of feet have been added to its length by filling in along the dock.

City Parks: In the western section of Grand Circus park, an ornamental stone ice water drinking fountain was erected.

In both Crawford and Elton parks, concrete sidewalks were built east and west across the parks, which have proven to be a wise and much appreciated improvement, because of the great travel across these parks.

In Cadillac park, there was placed a stone chair by the bicentenary committee to mark the site of the old city hall.

Perrien, Cass, West, Capitol and the other city parks each received its due share of improvement in accordance with the money allowed for the purpose.

The maintenance in all of the city parks was kept up and within the appropriation.

Grand Boulevard: The roadway was resurfaced from Jefferson avenue to Waterloo street, and from Medbury avenue to Sargent avenue. The cobble for resurfacing was crushed by the commission's crusher, which worked eighty-two days and crushed 2,548 cubic yards.

The Chene street brick intersection was completed, in addition to which macadam intersections were constructed at Theodore and Frederick streets.

The sidewalk intersections to be laid by the city were built so far as the money allowed would permit. The sprinkling pipe system was placed in the lawns from Fort street to Dix avenue, which is of great assistance in properly and economically caring for the lawns and flower beds along that section.

The money appropriated for planting was used in placing large elm trees along the driveways where most required.

Many other smaller improvements were made.

The boulevard requires a large amount of maintenance, there being some twelve or fifteen miles of roadway and the same of lawns along the center, between double driveways and on either side of the single and double driveways, besides thousands of trees, shrubs and flower beds, all of which have had due attention and been kept in a high state of cultivation.

The park and boulevard system is of the greatest importance to a large and growing city, as it affords the people places for outdoor recreation, besides its use as an educational feature. These facts are borne out by the greatly increased number of sightseers who yearly visit the parks and the large number of students who go there for the study of botany, etc.

The general superintendent's report in detail and the engineer's report for the past fiscal year, together with the secretary's financial report from July 1, 1901 to June 30, 1902 are hereto annexed and become a part of this report.

Respectfully submitted,

R. E. BOLGER,
Commissioner.

M. P. HURLBUT,
Secretary.

June 30, 1902.

CADILLAC CHAIR—CADILLAC PARK.

GENERAL SUPERINTENDENT'S REPORT

June 30, 1902.

To the Honorable, the Commissioner of Parks and Boulevards :

DEAR SIR :—I herewith present to you in detail a report of the work accomplished under my supervision in improving and maintaining the city parks and boulevards during the past fiscal year.

Grand Boulevard : The roadways were thoroughly wet and rolled and the most needed sections were resurfaced with crushed cobble for as great a distance as the appropriation would permit of. The cobble during the past year has been obtained from streets and alleys that have been repaved, at a low cost and then crushed by the park commission's crusher, which brought the actual cost of material to a minimum, and thereby rendered the cost of resurfacing much cheaper than the same could be contracted for.

The Eastern Grand Boulevard was resurfaced from Jefferson avenue to Waterloo street from two to four inches, as the grade required, comprising an area of about 22,537 square yards; also from Medbury avenue to Sargent street or about 13,350 square yards. These sections being thoroughly wet and spread with small crushed stone, then dressed with a course of limestone screenings which, when well rolled, afforded a binding, made a fine and smooth roadway, yet light and practically noiseless. This added very largely to the general appearance of these sections of the boulevard.

I would earnestly recommend a liberal allowance each year for this purpose until the boulevard is entirely completed.

There were built two roadway intersections at Theodore and also two at Frederick street, and built to a grade which will conform to streets connecting therewith, in accordance with the city plan. The entire pavement was built from sub-grade to finish with crushed cobble and dressed with a sufficient quantity of limestone to bind; therefore insuring a macadam roadway that will, in the future, require very little resurfacing to maintain it.

GRAND BOULEVARD—FROM WOODWARD AVENUE EAST.

Medina curbing was used in place of limestone, it being my opinion and from general observation, a more proper material on account of its being harder than limestone; therefore being less liable to break or chip off in the wear occasioned in the turning of corners. These four roadway intersections comprising an area of 876.20 square yards have been completed.

In a furtherance to completing the boulevard, walk intersections 8,437 square feet were laid at such points as were considered most needed, and I would earnestly recommend an appropriation for the completion of the same, as the plank walks are fast becoming defective and necessarily dangerous.

There were 80 elm trees, eight to ten inches in diameter, planted at different points along the boulevard, taking the

place of small ones; these were put in at a cost of $5.00 each. The principal object of the change being to make the line of trees more uniform. A great portion of the old trees were spaded and manured. Many have been found to be planted too deep and so to relieve them of this condition, it was found necessary to remove from ten to eighteen inches from around them to give them more air.

All along the northern boulevard, the shrubbery between the driveways has been changed from long, straggling and narrow scrolls and clusters at intersections and at various

GRAND BOULEVARD—FROM WOODWARD AVENUE WEST.

points between intersections, no particular attention being given to their respective families, but varieties clustered to create the best possible landscape effect. This change of planting, together with the fine condition of the lawns afford a view, the beauty of which is beyond expression.

A complete surface water system was laid between Fort street and Dix avenue, with an ample pressure at each hydrant to permit of a lawn sprinkler being placed on two or more of the sections at one time, thus enabling a care-taker to water all the lawns in his section practically at one time. There was $200 appropriated for hydrant gates, and when the surface water system was put in, six hydrants used for filling road sprinklers, that originally stood directly in front of private residences, were moved to the center lawns and

independent gates were placed on them. This was done not only in carrying forward the surface water system, but also to avoid the nuisance they occasioned to people living in their immediate vicinity.

ICE WATER DRINKING FOUNTAINS, BELLE ISLE PARK.

In the center lawn between Porter street and Shady Lane, there was a tool house built of brick; the location taken offered an unusual advantage in a natural knoll, being

of sufficient height to permit same to be entirely hidden from view. The entrance or descending walk, the banks of which are protected by a brick wall, is to be planted with crimson rambler roses, shrubbery or small flowering plants, which will completely hide same from public view. More shelters of this kind (or changed in design as the location would require) should be erected along the boulevard, and also in small parks, for the safety from theft of lawn mowers, rakes, hose and other tools required in the care of same.

The 5958 trees valued at $119,160.00, as well as the 6975 shrubs, vauled at $10,462.50, were well manured and mulched, and the dead wood entirely cut out, the shrubs particularly showing a benefit from it, as they have never shown such a thrifty growth in any one season.

The lawns on the boulevard were, in former years, not kept cut as lawns, but the grass was allowed to grow to hay and harvested; but during the last season the commissioner purchased nine hand and two horse lawn mowers, which have been in constant use in keeping nearly one hundred acres on grass on the boulevard as lawns. This work necessarily considerably increased the maintenance, but one needs but to see the boulevard to appreciate the care it has received. In order to keep the grass as a lawn, as it has been the past season, it will be necessary that a more liberal appropriation be given, and any improvement so universally appreciated by the public should not be overlooked. It is believed by many that the neat and tidy appearance of the boulevard has stimulated the building of residences along that thoroughfare.

Belle Isle Park Improvements: Bridge No. 11, on Inselruhe Road, was built of steel and paving brick with stone copings and trimmings; about 300 cubic yards of filling was required to bring roads to a grade.

Bridge No. 10 was completed and required a filling of 800 cubic yards to bring approaches to a perfect grade.

One feature of improvement made upon Belle Isle park, that is attracting more than ordinary attention, particularly among horsemen, is the macadam surfaced pavement constructed on Central avenue, between the casino bridge and Inselruhe avenue. The foundation is of slag with a depth

of twelve inches, with crushed cobble for a bed, dressed with limestone which, when sprinkled, makes a smooth and firm roadbed and practically noiseless. This roadway comprises about 2,500 square yards and was constructed at an expense of about seventy-five cents per square yard.

Another macadam roadway was built near the ostrich shelter, extending from Central avenue south to bridge over Swan lake, having an area of 458 square yards.

There were also about eighty square yards of walk built around the ostrich shelter. Both these roads and walks are built of the same material and in the same manner as the Central avenue roadway.

LAKE FRANCES—PALMER PARK.

A drinking fountain of ornamental tufa rock was built near the bridge approach with an ice receptacle of three tons capacity, which takes the place of an unsightly ice water tank. This fountain, in its rustic design and its ornamental planting, (which was built entirely in accordance with your design,) adds greatly to the appearance to visitors on entering the park.

Another drinking fountain, made of the same material but being of a different architectural design, was built near the bear pit, each fountain being fitted with ten faucets, thus affording an adequate supply for emergencies such as occurs on holidays and when large picnic parties take possession of the park.

I take great pleasure in stating, that to you is due great credit in the introduction of this style of ornamental rustic fountains upon Belle Isle, as the first of this nature brought into use in this country.

A rustic shelter was built on the island in Swan lake, which not only serves as a shelter but in its odd architectural design adds to the picturesque appearance of the surroundings.

The work of cleaning lake Takoma was taken up in the late fall, and about 8,300 cubic yards of mucky clay was removed to give the lake a sufficient depth to create a good current. The handling of this material was, owing to the sticky nature of the soil, rendered extremely hazardous. Much of this material was used in grading up the shores of the islands in the lake which, when riprapped with cobble, will not only insure their remaining intact, but greatly adds to the landscape effect. A quantity of the material was also used to fill in at new bridges, to bring roads to a proper grade, also in grading around the new greenhouses.

Just west of bridge No. 10 is a small island, the water on the north side of which was stagnant, owing to its peculiar situation to the current. This offensive portion was filled in, taking about 1,700 cubic yards of the excavation of this lake, which will unquestionably be the cause of removing a considerable resistance to, and occasion a more direct current, to the lake generally. There still remains a quantity of this excavation, which will be used in grading around the aquarium and horticultural building.

Loop canal, from the channel bank of the river south to the ferry dock, to within a few feet of bridge No. 2, was dredged to a depth of five feet. It was at first contemplated to do this work between ferry dock and the bridge by hand labor, but owing to the depth required to obtain a proper cur-

rent, it was found more economical to dredge it. From this work there was 6,378 cubic yards of dirt taken out, which was used in filling up the uneven shore at the west end of the island and around bridges to fill up washouts, it being of such a sticky nature that it will withstand the action of the currents. This portion, when the same has settled suffi-

SWAN SHELTERS—BELLE ISLE PARK ZOO.

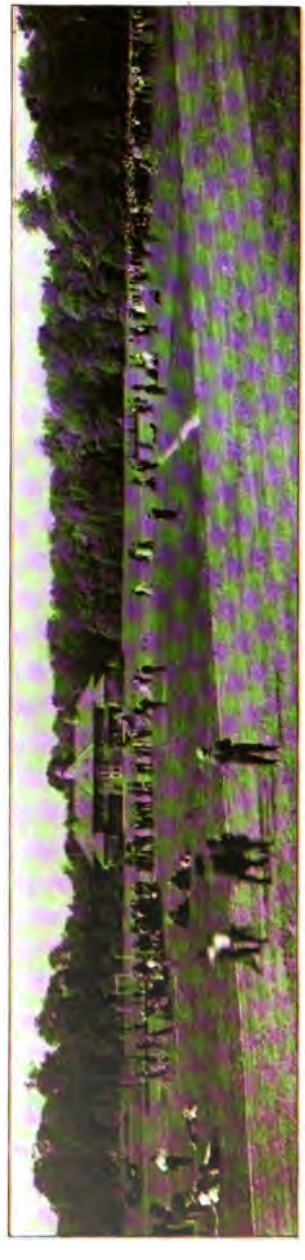
ciently to permit, will be seeded and will add greatly to the appearance of this end of the island, which is so admired by thousands who daily view same from the casino. I would seriously recommend that portion or west end of island be extended for a distance of about 300 feet to bring same to a more rounding shape, which when riprapped would avoid the wear occasioned by the currents coming together from both channels. This portion of the Loop canal, particularly in the vicinity of the boat house, has been for a year practically

unnavigable from the growth of weeds that also seriously interfered with the current through the canal. Much can be said of the benefits obtained in deepening the outlets of the canals, as your theory has proven a success over the former way of deepening the inlets. It has been clearly demonstrated that the opening of the outlets, by the action of the currents on either side of the island, has created a draft to the canal, and consequently a clear body of water is the result. The current will, however, be much improved when Loop canal is deepened between bridges 2 and 7.

Much was added to improve the water system of the park. The six-inch main extending from the main bridge, and running west between the boat and bath houses, was connected to the main on opposite side of canal, thus giving a better pressure to either side. When this connection was made, additional gates were put in to permit of the main being shut off in short sections in case of leaks or breaks. To the surface water system in the lawn in the vicinity of the casino, as directed by you, were added 686 feet of two-inch pipe, with branches of 380 feet of one-inch pipe, with its sprinkling hydrants placed 100 feet apart, does much toward saving the labor in caring for hundreds of feet of hose to care for the shrubs.

Six hundred and ten feet of 4-inch main was laid along Inselruhe avenue, connecting with the 6-inch main south of Central avenue and running south to lake Takoma, which is for the water supply to the new greenhouse and aquarium and horticultural building. A 4-inch hydrant was placed in rear of these buildings.

The athletic field which was taken up by the horticultural building and aquarium was moved to a certain section east, on the south side of the island between Vista avenue and Nashua canal, formerly used as a race track. This space was graded, a 12-inch main drain running from Vista avenue to Nashua canal, a distance of 2,000 feet. There were four base ball diamonds constructed, the running courses of which were excavated to a depth of 12 inches, tile drained and filled with slag, with a top dressing of sandy loam. This athletic



ATHLETIC PAVILION AND FIELD—BELLE ISLE PARK.

field affords ample space for four base ball diamonds, football, croquet grounds and tennis courts.

The maintenance of Belle Isle park is considerable, owing to the thousands who visit this park daily. The lawns were kept clean and cut short and many of the walks were resurfaced and in a general way kept in an excellent condition.

One new greenhouse was erected in which only the most modern heating and ventilating apparatus was used.

Palmer Park: Much was accomplished during the past year in improvements in this park. Sixty large and shapely elm trees, ranging from 8 to 10 inches in diameter were planted fifty feet apart on each side of the parkway, from Woodward avenue west to a point where the road forks and turns to the north and south, of which of this number but two died. For this purpose a tree-carrying wagon was purchased and with a result that these large trees were carted and planted at a cost of $4.50 each, while if the same had been contracted for, would have cost from $15.00 to $18.00 each.

About 5,500 square yards of roadway was constructed on the south side of this park; this section completed the road from the parkway to the casino and was built of gravel, using the coarser part for the foundation and finishing with a fine gravel. As soon as the weather would permit this spring, a fourteen ton roller was brought into requisition and the road thoroughly rolled, and all other roads and walks given the same treatment.

A great portion of the dead wood was cut out of the trees, particularly the larger and most dangerous ones and would have been entirely cleaned out, had the funds permitted of it.

A surface water pipe was extended from the main on the north side of the park to the nursery grounds, that the shrubs and trees might be cared for during the hot, dry months, and one needs only to see the progress made last season to appreciate the result obtained.

Nursery: During the past year, the stock of cuttings and shrubs have been greatly increased in the propagating house. There were 39,117 cuttings, etc., planted in

the nursery from the propagating house and 14,585 bedding plants set out in the park and various points on the boulevard and many of the small parks. Following is an inventory of the stock in the nursery :

	Trees.	Shrubs.	Herbaceous Perennials.	Total.
No....	14,064	27,732	1,028	42,824
Value	$1,125.12	$1,663.92	$113.08	$2,902.12

I find in the Palmer park arboretum the trees and shrubs named in the following list. I give the number of individual plants in each species, and a description ot the condition of each plant :

Acer nigrum.....	5 choice trees.....	Black maple.
" negundo.....	5 trees, all good..	Box elder.
" saccharum	3 trees, all right.....	Sugar maple.
" saceharinum	5 trees, first-class.	Silver maple.
" spicatum	1 fairly good tree.....	Mountain maple.
" rubrum.....	3 not fairly good trees..	Red maple.
Aesculus glabra	5 trees, all right.....	Fettid buckeye.
Alnus incana.....	3 good plants.....	Speckled alder.
Amelanchier botryapum.	5 good plants.....	Shad bush.
" canadensis	2 plants, all right.....	June berry.
" alnifolia	5 good plants.....	Alder leaved shad bush.
Aronia nigra.....	Large bed, in fine condition	Black choke berry.
" arbutifolia	An abundant bed.....	Red choke berry.
" small leaved variety	A good bed	
Asimina triloba.....	1 small plant.....	Pawpaw.
Betula pumila.....	7 good plants.....	Low birch.
" glandulosa.....	3 middling plants.....	Scrub birch.
" papyrifera.....	1 all right	Paper birch.
Carpinus carolina	1 fair tree.....	Blue beech.
Celtis occidentallis.....	5 fine trees.....	Hackberry.
Cephalanthus "	8 good plants	Buttonbush.
Circis canadensis	5 very fine trees.....	Red bud Judas tree.
Clematis virginiana	3 fair plants..... ...	Virginia bower.
Cornus amonus.....	A large ample group, in fine condition....	Silky cornel.

Cornus alternifolium....	Large bed, in fine condition	Alternate leaved dogwood
Cornus stricta.....	7 fair plants	Stiff cornel.
" candidissima	An ample bed.....	Panicled cornel.
" stolonifera.....	A fine group.....	Red osier.
Corylus americana	5 choice plants.....	Hazelnut.
" rostrata	3 plants; 1 good, 3 small,	Beaked hazelnut.
Cratægus tomentosa.....	6 good trees.....	Pear thorn.
" coccinea.....	5 fine trees.....	Scarlet thorn.
" punctata	6 good trees	Large fruited thorn.
" mollis.....	1 fair tree.....	Red fruited thorn.
Diervilla diervilla.....	11 fair plants	Bush honeysuckle.
Euonymus atropurpureus	5 good plants.....	Burning bush.
" americanus.....	4 fair plants.....	Strawberry bush.
Fagus americana.....	1 sorry tree.....	American beech.
Fraxinus americana.....	1 good tree	White ash.
" pennsylvanica.....	5 very fine trees.....	Red ash.
" quadrangulata.....	5 fairly good trees.....	Blue ash.
" nigra.....	5 good trees.....	Black ash.
" lanceolata	8 fine trees.....	Green ash.
Gleditschia triacanthos..	5 good trees.....	Honey locust.
Gymnocladus dioica.....	5 trees, all right.....	Kentucky coffee tree.
Hamamelis virginica....	A few sickly plants...	Witch hazel.
Hypericum prolificum...	5 good plants.....	Shrubbery St. Johnswort
Ilix verticilata	3 small plants.....	Winter berry.
Juglans nigra.....	9 healthy trees.....	Black walnut.
Larix larcina.....	4 fair trees, 1 small one.	Tamarack.
Liriodenderon tuliperifa.	2 very fine trees and one broken one	Whitewood poplar.
Lonicera glaucescens....	5 plants in bad condit'n.	Douglas honeysuckle.
" involucrata.....	11 fine plants.....	
" hirsuta.....	2 good plants; 1 poor one.....	Hairy honeysuckle.
Menispermum canadensis	Good sized bed in fine condition	Moonseed.
Myrica cerifera.....	1 plant, all right.....	Wax myrtle.

Opulaster opulifolius....	a fine group	Ninebark.
Picea canadensis.....	3 good trees	White spruce.
Platanus occidentallis....	5 very fine trees.....	Sycamore.
Populus balsamifera.....	5 fine trees.....	Tacamahæ.
" heterophilla.....	2 good trees	Swamp populus.
" tremuloides.....	2 poor plants	Quaking aspen.
" deltoides.....	4 fine trees	Cottonwood.
" monilifer.....	2 good trees.....	
Prunus pennsylvanica...	5 fine trees.....	Wild red cherry.
" pumila.....	9 plants, very fine.....	Sand cherry.
" virginia	5 good trees	Choke cherry.
" nigra	3 good trees	Wild black plum.
" americana.....	3 trees, all right	Wild plum.
Ptelea trifoliata.....	10 good plants.....	Hop tree.
Quercus imbricaria.....	1 good tree	Shingle oak.
" palustrus.....	5 good trees.....	Pin oak.
" prinoides.....	2 fine trees.....	Scrub chestnut oak.
" platinoides.....	2 fair trees.....	Swamp white oak.
Rhus vernix	4 trees, all right.....	Poison shumac.
" glabra	A fine clump.....	Smooth shumac.
" aromatica	4 plants, all right	Fragrant shumac.
" radicans	1 vine.....	Poison ivy.
" hirta	A fine grove.....	Staghorn shumac.
" capallina.....	5 trees, all right	Dwarf shumac.
Ribes cynosbati.....	Ample bed.....	Gooseberry.
" rubrum.....	2 good plants	Wild red currant.
" florida.....	2 good plants.....	Wild black currant..
" prostratum	7 fine plants.....	Fettid currant.
Rosa setigera	A large fine bed.....	Prairie rose.
" acicularis.....	1 good plant; several small ones.....	Prickly rose.
Rosa blanda	1 good plant; some small ones.....	Smooth rose.
Rosa carolina	A fine large bed.....	Swamp rose.
Rubus strigosus.....	An ample bed.....	Wild rose raspberry.
" neglectus.....	Fine bed.....	Wild purple raspberry.
" occidentallis	Enough all right.....	Raspberry.
" " var. aureus...	Plenty, in good condition	

Rubus vilosus	Enough all right	Highbush blackberry.
" canadensis	All right	Dewberry.
" odorata	A large, fine bed	Purple flower'g raspberry
Salix humilis	4 vigorous plants	Prairie willow.
" tristis	5 plants, all good	Gray willow.
" lucida	3 good plants	Shining willow.
" sericea	1 very poor plant	Silky willow.
Sambucus canadensis	5 good specimens, in fair condition	Common elder.
" pubens	4 plants, all right	Red berried elder.
Sasafras sasafras	2 fairly good ones	Sasafras.
Solanum dulcamara	5 good plants	Nightshade.
Spiræa salicifolia	Large bed of fine plants	Willow-leaved spiræa.
" tomentosa	9 fine plants	Hardtack, steeple bush.
Staphylea trifolium	8 very fine plants	Bladdernut.
Symphorocarpos occidentallis	9 good plants	Wolf berry.
Symphorocarpos symphorocarpos	9 choice plants	Coral berry.
Symphorocarpos racemosus	1 good plant	Snow berry.
Tilia americana	4 trees; 1 good; 1 injured	Basswood.
Thuja occidentallis	5 fairly good trees	White cedar.
Ulmus fulva	3 trees, all right	Slippery elm.
" racemosa	5 very fine trees	Cork or rock elm.
" americana	4 trees; all injured, should be replaced	White elm.
Vaccinum corymbosum	5 good plants	High blue berry.
Viburnum opulus	9 good plants	Cranberry tree.
" acerifolium	6 very small plants	Maple-leaved arrowwood
" lentago	4 plants, in bad shape	Nanny berry.
" pubescens	9 good plants	Arrowwood.
" dentatum	4 plants; small, but healthy	Arrowwood.
" prunifolium	4 good plants	Black haw.
" cassinoides	8 plants, all right	Withrod.
Vitis vulpina	A large bed	Riverside grape.
" labrusca	4 fair plants	Fox or plum grape.
Xanthoxylum americana	8 good plants	Prickly ash.

Perrien Park: In this park, there was erected a tool house 8 feet long and 5 feet wide and 6 feet high, the greater portion of which is underground. The portion remaining above, is to be hidden from view by a thick planting of shrubbery. The entrance having a descending walk (also made of brick) will, when circled with shrubbery, entirely hide same from view.

PERRIEN PARK.

The lawns that have been sodded were kept cut short from the beginning of the season. The portion of lawn not graded has also been cut frequently to exterminate the weeds, this portion when rolled and seeded often during the season will promote a good lawn.

Recreation Park: According to the appropriation allowed, there was constructed a cement walk east and west through the section at Alexandrine avenue, also the north and south intersection walks taking the place of gravel walks, which will be well appreciated by people having to cross there, particularly during the wet spring months.

The shrubs were well manured and mulched in the early part of the season and carefully pruned, to obtain the desired effects from their respectively located clusters.

Second Avenue Parkway: The lawns were plowed, cultivated and rolled, this being again necessary, owing to the quantity of weeds growing from the manuring given last season.

The ground was graded to an even slope and thoroughly rolled. Two sections having an area of 2,105 square yards, were sodded. These sections in particular have added greatly to the appearance of this parkway. The small elm trees, about fifty in number, removed from the boulevard were set out in this parkway, making the expense simply of planting the same.

There was also 1,200 feet of surface water pipe put in, with the necessary connections and blow off cocks for draining same. This will assist greatly to the maintaining of the lawns and trees.

Campau Park: An appropriation was allowed sufficient to permit of very needed improvements.

The old fountain basin, together with the ancient architectural design of fountain was removed and a more modern basin constructed, this being built of cobblestone, grouted with cement. The outer edge of this basin is built of large boulders, and when planted with water growing vines will give a very pleasing effect to the park.

The water pressure being inadequate to supply both fountain and sprinkling system, a larger connection was made with the Mullett street main, and 108 feet of 4-inch main laid in the park. In accordance with your wishes, a geyser was made and placed in the fountain, which affords a most beautiful water display.

The plank walks on the east and west sides of the park, running north and south, were taken up and the space graded

and seeded. In the contemplation of this park during the coming year receiving cement walks, no further work has been done.

Harmonie Park: Nearly the entire park was resodded, this being necessary owing to the constant wear the lawns have received, which were found to be irreparable. As much planting was done as the space required, to produce a pleasing effect.

ICE WATER DRINKING FOUNTAIN—GRAND CIRCUS PARK.

Grand Circus Park: The drinking fountain in the west part was completed, the ice receptacle of which has a capacity of two and one-half tons, requires filling but twice a week.

It was found necessary to take up part of the drain from the fountain, and the crock was relieved from its condition.

A growth of fine tree roots, about fifty feet in length, was removed therefrom that had grown to nearly the size of the crock.

I would recommend for your consideration the use in the future of iron pipe with caulked joints.

The lawns were graded in many places to conform to the walks, particularly along Woodward avenue, and were resodded. The beds were artistically planted with a variety of flowering plants.

Opera House Lawn: There is no other park on the system that attracts more public attention than the opera houes lawn with the beautiful granite and marble structure, the "Merrill" fountain in its center, which was a gift to the city by ex-Senator and Mrs. Palmer. This fountain was entirely completed, and the lawns in many places were resodded, and to do justice to this handsome structure, the small shrubs were removed and large beds of flowering plants substituted. Much attention is paid to its being well cared for.

Owen Park: Too much could not be said of the appearance in the result of the improvements made in this park. The grade to fill up the hollow portion of the park, as determined by you, was carried out, requiring about 5,900 cubic yards of earth. This filling was done between the outside walks and from the intersection of the walks at lower end, to the first terrace at north end of park. The principal object of raising the grade was to conform as nearly as possible to the grades of the adjoining property when the same shall have been built on, thereby insuring that all further improvements, such as sodding and planting of trees and shrubs, will be permanent ones. The change in the grade has made the park visible from either side of Jefferson avenue for its entire length. This, together with your ideas contemplated for a display fountain with careless winding walks to permit of appropriate planting, when completed, will make this park one of the most attractive in the system.

A section of about 2,100 square yards was dressed with rich loam and sodded. Elm trees four to six inches in diameter were planted along each side of walks, they being large enough to afford shade in a short time.

About 6,000 cubic yards of filling was added to the above, on the east side extending about 70 feet, and on the west side about 120 feet into the river, which will not only add in acreage but will, when completed, be a feature to this park.

Cass Park: This, like all other parks, received its due amount of care. A connection was made to the main water pipe to add two inches more pressure to the fountain. A new circle was made and brass sprays used in place

CASS PARK.

of iron. These sprays, having a knuckle joint, offer an opportunity for changing the display at various times during the season.

A portion of the walks were resurfaced and all edged, and the lawns resodded where needed.

Elton and Crawford Parks: Two cement walks are built through each of these parks, running east and west, and connecting with streets on each side; this is an improvement much to be appreciated as the gravel walks that formerly existed were almost impassable at certain seasons of the year.

A change was made in the surface water system, whereby one more connection was added in each park to permit of the lawns being cared for with much less hose.

Boston Boulevard: The lawns were well cared for, being kept cut close and well watered. The shrubs were pruned and beds graded. The thick clusters of rose bushes in their present state of bloom, make a most beautiful landscape effect.

Clark Park: This park, with the appropriation allowed, received its due amount of improvements, one in particular was the change made in the west lake, which was entirely in accordance with your suggestions. This lake, lying west of the roadway, when drained was found to be just as you suspected, in an unsanitary condition, the cause of which was due principally to the nature of the soil, and the manner in which it was drained. Its water supply and only manner of drainage came through two 24-inch crocks, laid under roadway adjoining both lakes. This lake bed was cleaned out, taking from six to twelve inches in depth, or about 400 cubic yards, to bring same to an even grade. A tile drain was placed through the center of same; an average of about six inches of slag was spread and well tamped, upon which a concrete bed was constructed to within twelve feet of the shore line, this space being paved with cobble and grouted with cement. All points of land that projected into the lake at various places were cut off, and the

little bays that would have a tendency to interfere with a proper circulation of water were filled in, which required about 500 cubic yards of earth. All dead trees in the vicinity of the lake were cut down and stumps taken out. The roadway between the lakes was widened from 25 to 50 feet, this point being the intersection of four roads with its generous amount of planting of high growing shrubbery on the east side of the roadway, made it extremely dangerous. The

WEST LAKE—CLARK PARK.

shrubbery was taken up and planted on opposite side of roadway. An overflow was placed at each end of the lake, the easterly one draining through a six-inch crock laid under the east lake to manhole, affording an opportunity of draining the lakes independently of each other. Each lake has also an independent water supply from a two-inch pipe.

The water main entering the park from Porter street was connected with the Clark avenue main, and 325 feet of four-inch pipe being thus added to the system, which makes a complete circulation and will increase the pressure through the entire park.

THE FOLLOWING IS A TABULATED REPORT OF WORK DONE:

PARKS.	Square Yards Sodding.	Square Ft. Cement Walks Laid.	Square Yds. Concrete Laid.	Cubic Yds. Filling.	Cubic Yds. Excavating.	No. Ft. of Drains Laid.	Square Yds. Roads and Walk Construc'd	Square Yds. Roads Resurfaced.	Square Yds. Walks Resurfaced.	No. Ft. Water Pipe Laid.
Boston Boulevard	727									
Belle Isle	2,296			8,078	14,678	4,340	3,038		2,592	1,676
Capitol	465								622	
Cadillac	910								925	
City Hall lawn	450									
Crawford		1,757								75
Campau										108
Cass									230	30
Clark			1,676	500	400	460				325
Elton		1,768								75
Grand Circus	725								906	
Grand Boulevard	500	8,437					876	35,887		2,215
Harmonie	1,980									
Medbury parkway	501									
Opera House lawn	231									
Owen	2,126			11,500						
Recreation parkway		814								
Soldiers' monument	38									
Second avenue parkway	2,105									1,200
Washington parkway	1,126								860	
Palmer							5,500			40
Other small parks	2,494									
TOTAL	17,174	12,776	1,676	20,078	15,078	4,800	9,414	35,887	6,135	5,744

The drinking fountains were repaired, also the floors in the toilet rooms and tool house. The roads and walks were edged up and crowned, which gives the park a neat appearance.

Other City Parks: All the smaller city parks, viz. Cadillac, Capitol, City Hall, Clinton, Macomb, Medbury, Stanton, Washington, Voigt and West parks were unusually well cared for this season. All shrubbery was fertilized and pruned and a great deal of attention devoted to the cutting of the lawns. The walks in many of them were resurfaced with limestone screenings, and a profuse amount of planting done in the nature of plants having a tendency of flowering during the entire season which, according to the number of favorable comments that are daily received, indicates that this style of planting meets with public approval generally.

I am pleased to state to you that the expressions from all with whom I have come in contact were none but words of praise for you in the manner in which the parks and boulevards have been maintained the past year.

Respectfully submitted,

W. D. HEALY,

General Sup't.

ENGINEER'S REPORT.

June 30, 1902.

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—Following is an account of the work done in my department during the past year:

Surveys, calculations and plans were prepared for condemnation proceedings in the extension of the Grand Boule-

vard from Fort street to the channel bank of the Detroit river, showing in detail the right of way to be acquired, and also the descriptions of each individual parcel of property.

There was also a survey, plans and descriptions of property purchased for an athletic field to Clark park, together with the necessary proceedings for the vacation of the streets and alleys taken therein.

BRIDGE NO. 11, ON INSELRUHE AVENUE—BELLE ISLE PARK.

Grades were set on all drains, roads and walks constructed on the system, which were set to conform in every detail with the city grades. Grades were also set on all surface water pipe laid, that the same may be perfectly drained off in the fall.

A survey of a portion of Lafayette Boulevard was made, being between Griswold street and Trumbull avenue, showing intricate details of all buildings, walks, trees, etc. that

are located or encroach on same, this to be mapped and bound in book form.

The sectional maps of Belle Isle park, heretofore bound in book form, showing the details of the water and electric conduit, together with the drainage and locations of building was brought to date.

Bridge No. 11 was laid out, grade and offset stakes placed at the corners of the bridge, etc.

The aquarium and horticultural building was laid out, grade and offset stakes being placed at all intersections of the buildings.

A survey was made of Atkinson park by request of the commissioner, and permanent monuments of stone, six inches square, were set for corners.

In addition to the park records was added one volume, comprising maps of the entire system of small parks, which is in detail like those formerly made of Belle Isle park and the Grand Boulevard. These books of parks not only serve as a matter of record of the improvements made from year to year, but by their details of water supply and drainage, the gates, stop cocks and drainage valves (owing to the variety in use occasioned by improvements), explicitly states the manner of using same, that there be, in a change of administration, left a public record of how these systems are constructed and controlled, which is fast becoming complicated. These records will require attention that the same may be brought up to date each year.

Respectfully submitted,

F. O. RAY,
Engineer.

PALMER PARK.

WOODS—PALMER PARK.

SECRETARY'S REPORT

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—I herewith submit the annual financial statement for the fiscal year commencing July 1, 1901, and closing June 30, 1902, both days inclusive, showing a cash balance in the city treasury, at the close of business June 30, 1902, as follows:

Park and boulevard fund, - -	$5,845 46
Park improvement fund, -	$100,069 33

Certified to by the deputy city controller, as per his statement hereto attached.

The report also shows a list of the principal improvements and their cost, a statement of the bonds issued, the estimates asked, and the amount allowed since 1889, also in tabulated form, a complete list of the expenditures on the park and boulevard system, from all sources since 1854.

Respectfully submitted,

M. P. HURLBUT,

June 30, 1902. *Secretary.*

OFFICE OF THE CONTROLLER,
DETROIT, June 30, 1902.

HON. M. P. HURLBUT, Sec'y,

To Park and Boulevard Commissioner, Detroit.

DEAR SIR:—I hereby certify that the cash balance to the credit of the park and boulevard fund at the close of business June 30, 1902, is..... $5,845.46
and that the cash balance to the credit of the park improvement fund is..... $100,069.33

Respectfully,

HOWARD C. BECK,
Deputy Controller.

Financial Statement.

JULY 1, 1901 to JUNE 30, 1902.

Park and boulevard fund cash balance, July 1, 1901..... $9,177 87
Park improvement fund " " " 1, 1901.....148,127 93

RECEIPTS.

Park and Boulevard Fund.

Appropriation, 1901		$145,265 00
" by common council		9,000 00
Casino privilege, Belle Isle	$3,600 00	
Boating " "	400 00	
Bicycle " "	129 51	
Pony " "	550 00	
Skating pavilion privilege, Belle Isle	500 00	
Casino privilege, Palmer park	235 18	
Ferry licenses	612 50	
Landing permits	220 00	
Sale of horses	510 00	
" old iron	54 08	
" cobble	45 00	
" old street car	3 00	

Phaeton receipts	$10,009 61		
Bath house "	2,864 95		
Soldiers' monument fund	100 00		
Rent bldg. B. I. bridge approach	80 00		
Ice, Detroit Yacht Club	60 52		
Ice, Detroit Boat Club	32 20		
Ice, Palmer park	17 48		
Boulevard walks assessments collected,	179 61		
Labor and material, Det. City Gas Co.,	17 56		
Inspection receipts	35 00		
Labor and coal, Blay & Son	17 00		
Sale of building, B. I. bridge approach	50 00		
Unclaimed checks	60 12		
Lost checks refunded by treasurer	18 75		
Castings returned to Am. Radiator Co.	10 73		
Damages	5 00		
Hauling	6 50		
Unclaimed cash, boulevard exten	1 00		
Encroaching on boulevard (lease)	1 00		
Detroit Yacht Club lease	1 00	$20,427 30	
City contingent fund	$49,165 83		
	6,208 67		
	281 40		
	400 00	56,055 90	
Park and boulevard bonds		181,000 00	411,748 20
Total			$569,054 00

Park and Boulevard Fund.

EXPENDITURES.

GENERAL MAINTENANCE.

Administration.

Salaries	$6,592 28	
Printing and stationery	284 80	
Office rent, etc	2,101 62	
Incidentals	20 00	$8,998 70

Telephones.

Telephones		$248 34

Engineering Department.

Salaries and labor	$1,571 68	
Supplies	486 72	2,058 40

Greenhouse Department.

Propagation	5,045 34	
Floral	1,230 40	
Stock and supplies	174 90	
Fuel	549 36	7,000 00

Tools.

Purchase	1,583 95	
Repairs	916 50	2,500 00

Rollers.

Final payment		498 00
Engineer	676 12	
Fuel and supplies	312 06	
Repairs	611 82	1,600 00

Crusher.

Labor	588 07	
Repairs	261 33	
Supplies	100 60	950 00

Barn Department.

Barns and horses, care of	5,842 89	
Vehicles, repair	1,817 64	
Shoeing	1,110 05	
Harnesses	416 69	
Supplies	301 29	
Forage	4,826 87	
City barn	1,683 70	15,999 13

Band Concerts.

Music		5,416 14

Nursery.			
Labor and supplies		$2,428 60	
Fertilizers.			
Purchase and gathering		500 00	
Total general maintenance,			$48,197 31
General Improvements.			
Cobble	$2,000 00		
Harnesses	200 00		
Horses	2,135 00		
Wagons	200 00		
" (sprinkling)	1,800 00		
Dump carts	150 00		
Hose "	150 00		
New greenhouse	5,243 73		
Truck	325 00		
Total general improvements,			12,203 73

BELLE ISLE MAINTENANCE.

General maintenance	$13,832 18		
Settees and swings	1 68		
Flower beds	1,746 79		
Drainage	12 60		
Trees and shrubs	1,157 64		
Skating lake	662 40		
Fuel	1,559 18	18,972 47	
Buildings.			
Casino repairs	629 40		
Bath house repairs	223 86		
Skating pavilion repairs	391 88		
Boat house repairs	24 29		
Barn repairs	269 52		
Greenhouse repairs	302 04		
Inselruhe repairs	82 01		
Ice house repairs	140 59		
Buildings, generally, repairs	413 22		
Furniture, repairs	93 32	2,570 13	

Roads and Walks.

Maintenance—roads and walks	$1,725 25	
Sprinkling	432 92	
Hitching bays	11 25	$2,157 42

Docks and Bridges.

Dock, care of	142 50	
" repairs	57 08	
Bridges, repairs	123 53	323 11

Water System.

General repairs	442 72	
Filling tanks and fountains	649 89	
Repairing tanks	26 90	
Cutting ice	558 42	1,677 93

Zoological Department.

Care of animals	807 02	
Feed	2,133 09	
Cages, repair	59 87	2,999 98

Closets and Cesspools.

Care of	1,337 90	
Repairs	32 76	
Materials	94 50	1,465 16

Phaeton Service.

Maintenance		6,000 00

Bath House.

Maintenance	1,931 45	
Suits, etc	368 55	2,300 00

Patrolmen.

Wages	909 00	
Total maintenance, Belle Isle,		39,375 20

BELLE ISLE IMPROVEMENTS.

Belle Isle.

Road construction	$2,500 00	
Ice house	250 00	
Bridge No. 11	2,464 53	
" " 12	583 05	
" " 10	3,885 00	
Athletic grounds	1,000 00	
Lake Takoma, deepening	4,000 00	
Loop canal "	2,500 00	
Lily pond	100 00	
Phaeton	550 00	
Lagoons	250 00	
Riprapping	250 00	
Phaeton harnesses	100 00	
Animals and Cages { Animals, $624 71; Cages, 1,375 29 }	2,000 00	
Hydrants	150 00	
Gates	200 00	
Sprinkling system	500 00	
Drinking fountain	500 00	
Settees and swings	200 00	
Laundry machine	250 00	
Piling at bath house	260 00	
Boat house dock	100 00	
Casino painting	985 00	
" steps	470 00	
Inselruhe	250 00	
Woman's toilet	85 00	
Ferry dock	500 00	
Rustic work	250 00	
Lily pond bridge	100 00	
Storage cellar	8 80	
Motor	250 00	
Sawing machines	225 00	
Band saw	140 00	
Total improvements, Belle Isle,		$25,856 38

BOULEVARD MAINTENANCE.

Grand Boulevard.

General maintenance	$336 83		
Lawns, "	616 47		
Trees and shrubs	1,924 86		
Floral	172 29		
Water system	146 77		
Roads	318 41		
Walks	10 70		
Road sprinkling	2,473 67	$6,000 00	
Care-takers	3,031 80		
Patrol	1,460 00		
Road intersections	1,500 00		
Grass cutting	1,200 00		
Total maintenance, boulevard,			$13,191 80

BOULEVARD IMPROVEMENTS.

Trees—purchase and planting	$500 00	
Gates	200 00	
Sprinkling system (Fort to Dix)	510 00	
Tool house	200 00	
Viaduct	300 00	
Walk intersections	1,000 00	
Brick "	460 00	
Resurfacing	5,000 00	
Total improvements, boulevard,		8,170 00

PALMER PARK MAINTENANCE.

Palmer Park.

General maintenance	$2,717 52
Roads and bridges.	152 03
Buildings and closets	46 71

Cutting ice	$49 32		
Forage	369 97		
Trees and shrubs	69 47		
Floral	77 78		
Water system	157 86		
Fuel	324 65		
Water rates	700 00		
Total Palmer park maintenance,			$4,665 31

PALMER PARK IMPROVEMENTS.

Arboretum	$229 57		
General improvements	797 60		
Road construction	1,829 57		
Trees and shrubs	95 09		
Water system	146 09		
Log cabin	150 00		
Roads—parkway	927 34		
Trees— "	72 66	1,000 00	
Total Palmer park improvements,			4,247 92

CLARK PARK MAINTENANCE.

Clark Park.

General maintenance	$1,604 03		
Roads	27 00		
Buildings	44 24		
Trees and shrubs	268 95		
Ice	50 00		
Total Clark park maintenance,			1,994 22

CITY PARKS MAINTENANCE.

City Parks.

Owen	$5 77	
Perrien	80 12	
Grand Circus	175 34	

[illegible] MAINTENANCE

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	$[illegible] 00
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]		$13,191 80

[illegible] IMPROVEMENTS

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]		8,170 00

[illegible] MAINTENANCE

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]	[illegible]	

Cutting [illegible]	$49 32	
Forage	369 97	
Trees and shrubs	69 47	
Flora	77 78	
Water system	157 86	
Fuel	324 65	
Water rate	700 00	
Total current perm. maintenance,		$4,665 31

[illegible] PARK IMPROVEMENTS.

[illegible]	$229 57		
[illegible]	797 60		
[illegible]	1,829 57		
[illegible]	95 09		
[illegible]	146 09		
[illegible]	150 00		
[illegible]	927 34		
[illegible]	72 66	1,000 00	
[illegible] improvements,			4,247 92

[illegible] PATH MAINTENANCE.

[illegible] Park.

[illegible] maintenance	$1,604 03	
[illegible]	27 00	
[illegible]	44 24	
[illegible] and shrubs	268 95	
[illegible]	50 00	
[illegible]		1,994 22

[illegible] PARKS MAINTENANCE.

[illegible] Parks

[illegible]		$[illegible] 77
[illegible]		[illegible] 32
[illegible] and Cy[illegible]		[illegible]

Voigt Park.

General		$100 00	

City Hall Lawn.

General		100 00	

Elton.

General	$90 52		
Walks	194 48	285 00	

Crawford.

General	91 68		
Walks	193 32	285 00	

Second Avenue Parkway.

General		500 00	

Boston Boulevard.

General		100 00	

Opera House Lawn.

General		150 00	
Total city parks improvements,			7,372 99

Park Improvement Fund.

Traveling expenses	$14 75	
Printing and stationery	203 58	
Water system	444 30	
Drainage	133 19	
Superintendance	855 00	
Masonry	8,825 00	
Grading	36 94	
Plans and specifications	2,804 12	
Cut stone	4,100 00	
Heating and power	19,741 72	
Plumbing	600 00	
Steel and iron work	6,700 00	
Carpenter work	3,600 00	
Total expended on aquarium and hort'cl bldg.		48,058 60

BOND ISSUE AND CONTINGENT FUND.

Belle Isle Bridge Approach.

Property acquired by condemnation.....	$49,165 83

Grand Boulevard.

Property acquired by condemnation.....	106,208 67

Clark Park Extension.

Purchase of property.....	40,281 40

Atkinson Park.

Purchase of property.....	41,400 00
Total.....	$237,055 90

RECAPITULATION.

Park and Boulevard Fund.

	MAINTENANCE.	IMPROVEMENTS.
General maintenance and improvements...	$48,197 31	$12,203 73
Belle Isle park " " "	39,375 20	25,856 38
Boulevard " " "	13,191 80	8,170 00
Palmer park " " "	4,665 31	4,247 92
Clark park " " "	1,994 22	2,866 65
City parks " " "	9,883 20	7,372 99
	117,307 04	60,717 67
Maintenance.....		117,307 04
Total expenditures		178,024 71
Cash bal., June 30, 1902..		5,845 46
RECEIPTS—		
Cash balance, July 1, 1901.....	9,177 87	
Appropriation	145,265 00	
" by common council	9,000 00	
General receipts.....	20,427 30	
	183,870 17	183,870 17

[illegible]

Park Improvement Fund.

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Bond Issue and Contingent Fund.

[illegible]	[illegible]	
[illegible]	[illegible]	
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
	[illegible]	[illegible]

Park and Boulevard System.

Park and boulevard fund receipts		[illegible]	
Park improvement fund balance		[illegible]	
[illegible] bond issue	[illegible]		
[illegible] contingent fund	[illegible]	[illegible]	
Total receipts		[illegible]	
Maintenance and improvements,			
park and boulevard fund			[illegible]
Maintenance and permanent [illegible]			
park improvement fund			[illegible]
Park and boulevard property and [illegible]			
bond issue and contingent [illegible]			[illegible]
Total expenditures			[illegible]
Park and boulevard fund cash balance			
[illegible]			[illegible]
[illegible] improvement fund cash balance,			
[illegible]			[illegible]
		[illegible]	[illegible]

PARK AND BOULEVARD SYSTEM.—(Expenditures.)

COMPILED FROM CITY RECORDS.

General Maintenance includes administration, tools, nursery, greenhouse, barns, horses and vehicles and general improvements.

Year.	MAINTENANCE.						IMPROVEMENTS.						TOTALS.		GRAND TOTAL.
	GENERAL Inc. Gen'l Imp.	BELLE ISLE.	PALMER PARK	CLARK PARK	SMALL PARKS.	BOULEVARD.	BELLE ISLE.	PALMER PARK.	CLARK PARK.	SMALL PARKS.	BOULEVARD.	BOULEVARD Right of Way.	MAINTENANCE.	IMPROVEMENTS.	
1854	On account of change in fiscal year the item in 1878 is for 17 months and in 1896 it is for 18 months; $5,416.67, commissioner's salary in 1900-01 from contingent fund.			Included in maint. of small parks from 1890 to 1899.	$1,869 75		First item is for purchase of the park. $49,165.83 in 1901 for addition to bridge approach.		First item is for purchase of the park and was paid from the general city fund; $40,381.40 in 1901 for addition.	Improvements from 1854 to 1899 are included under head of maintenance; $41,400.00 in 1901 for Atkinson park.		$3,722.14 of the $4,600.00 in 1899 was paid from city contingent fund.	$1,869 75		$1,869 75
1855					167 98								167 98		167 98
1856					1,163 36								1,163 36		1,163 36
1857					934 29								934 29		934 29
1858					268 45								268 45		268 45
1859					181 46								181 46		181 46
1860					185 74								185 74		185 74
1861					1,915 14								1,915 14		1,915 14
1862					2,862 65								2,862 65		2,862 65
1863					1,981 15								1,981 15		1,981 15
1864					2,391 69								2,391 69		2,391 69
1865					1,324 58								1,324 58		1,324 58
1866					2,686 53								2,686 53		2,686 53
1867					1,945 00								1,945 00		1,945 00
1868					1,433 12								1,433 12		1,433 12
1869					1,344 98								1,344 98		1,344 98
1870					2,351 93								2,351 93		2,351 93
1871					4,333 36								4,333 36		4,333 36
1872					3,345 99								3,345 99		3,345 99
1873					2,111 38								2,111 38		2,111 38
1874					3,509 83								3,509 83		3,509 83
1875					3,368 21								3,368 21		3,368 21
1876					6,024 08								6,024 08		6,024 08
1877					2,666 24								2,666 24		2,666 24
1878					2,180 04								2,180 04		2,180 04
1879		$1,415 50					$200,000 00						1,415 50	$200,000 00	$201,415 50
1880					1,750 04		202 15				$13 08		1,750 04	215 23	1,965 27
1881		900 43			1,612 76						15 82		2,513 19	15 82	2,529 01
1882	$2,410 98	1,948 62			2,189 11		10,144 99				1,964 18		6,548 71	12,109 17	18,657 88
1883	3,060 55	18,043 30			1,606 58		16,927 71				337 72		22,710 43	17,265 43	39,975 86
1884	2 905 83	13,519 69			2,612 43		10,264 45				6,851 55		19,037 95	17,116 00	36,153 95
1885	2,094 70	3,875 54			2,163 50		5,873 41				20,560 08		8,133 74	26,433 49	34,567 23
1886	3,374 76	13,917 61			2,224 96		11,386 02				16,787 67		19,517 33	28,173 69	47,691 02
1887	3,431 11	45,981 99			2,227 75		59,923 47				24,710 36		51,640 85	84,633 83	136,274 68
1888	7,105 67	21,000 34			2,837 92		48,066 62				11,848 93		30,943 93	59,915 55	90,859 48
1889	8,501 98	21,487 55			2,155 92	$5,149 73	59,562 30				1,423 71		37,295 18	60,986 01	98,281 19
1890	10,860 90	25,646 86			5,212 50	7,501 60	117,629 88		$46,000 00	$2,782 79	2,779 36		49,221 86	169,199 03	218,413 89
1891	10,256 04	42,993 96			10,216 77	16,389 66	85,323 70		6,123 04	7,803 99	30,223 23	$99,477 84	79 856 43	228,951 80	308,808 23
1892	14,899 96	43,798 60			13,901 23	11,411 85	34,393 96		4,265 15	553 75	265,549 48	108,982 40	84,011 64	413,744 74	497,756 38
1893	31,374 27	43,593 02			7,385 39	4,570 67	96,602 05		2,478 06	3,419 61	195,640 52	842 45	86,923 35	298,982 69	385,906 04
1894	30,839 92	31,079 12	$393 19		7,828 59	12,464 92	106,715 95	$1,882 84	2,954 55	3,251 04	103,589 79		82,605 74	218,394 17	300,999 91
1895	29,384 79	32,769 67	1,066 78		6,104 17	10,972 25	41,598 28	7,503 41	2,406 80	2,170 78	31,018 72	4,739 06	80,297 06	89,437 06	169,734 71
1896	36,502 16	48,222 16	3,163 13		11,822 10	12,998 76	36,755 01	10,246 98	2,375 24	4,806 22	53,833 53	33 00	112,708 81	108,040 98	220,758 79
1897	28,587 98	42,477 04	2,612 04		10,464 03	10,050 59	1,576 91	18,415 17	2,543 03	6,327 26	20,071 46	800 00	94,191 68	49,734 73	143,926 41
1898	27,142 25	37,500 33	4,003 55		10,057 85	13,195 74	15,678 32	11,132 56	2,729 05	5,139 41	10,841 33	550 00	91,899 72	46,070 67	137,970 39
1899	44,924 17	36,737 22	4,325 83	$446 48	7,663 63	10,009 01	23,966 98	7,088 17	4,732 83	4,278 20	15,344 32	4,600 00	104,106 34	60,005 50	164,111 84
1900	54,663 59	35,350 87	5,001 86	1,926 38	8,162 98	11,120 95	48,931 98	10,172 40	4,181 47	7,439 03	5,211 75		116,126 63	75,936 03	192,062 26
	65,401 04	39,375 20	4,665 31	1,994 22	9,883 20	13,191 80	123,080 81	4,247 92	43,148 05	48,772 90	8,170 00	106,908 67	134,510 77	333,628 44	468,139 21
	$417,622 65	$601,634 62	$25,231 69	4,367 08	$182,630 34	$139,027 53	$1,154,604 95	$70,684 45	123,938 17	$96,745 07	$826,786 59	$326,233 42	$1,370,513 91	$2,598,992 65	$3,969,506 56

Parks and Boulevards.

The following table shows the acreage and present estimated value of the parks and boulevards together with the improvements on each (city hall excepted) :

NAME.	ACREAGE.	ESTM'D VAL. LAND AND IMPROVEM'TS
Adelaide Campau	1.199	$17,500 00
Atkinson	13.470	41,400 00
Belle Isle	707.000	3,278,000 00
Boston parkway	2 440	20,000 00
Chicago parkway	2.440	17,000 00
Cadillac	.790	500,000 00
Capitol	.510	200,000 00
Cass	4.966	165,000 00
City Hall Lawn	.550	1,700,000 00
Clark	31.601	300,000 00
Clinton	1.068	55,000 00
Crawford	.746	20,000 00
Elton	.740	20,000 00
Grand Circus	5 566	1,500,000 00
Harmonie	.448	20,000 00
Macomb	.557	7,000 00
Medbury parkway	3 440	40,000 00
Opera House Lawn	.174	150,000 00
Owen	6.990	90,000 00
Palmer	140.410	250,000 00
Parker parkway	.373	3,500 00
Perrien	5.180	50,000 00
Recreation parkway	1.290	20,000 00
Second Avenue parkway	1 110	16,500 00
Shakespeare parkway	1.640	7,500 00
Schiller parkway	1.640	7,500 00
Stanton	695	10,000 00
Voigt	9.601	45,000 00
West	.744	78,000 00
Washington parkway	2.862	500,000 00
Grand Boulevard	220.768	1,250,000 00
Totals	1,171.188	$10,378,900 00

Boulevard mileage, 11.62.

Park and Boulevard System.

Bonds Issued and Estimates Asked and Allowed.

Total bonds issued for Belle Isle park	$915,000 00
" " " " City parks	81,000 00
" " " " Grand Boulevard	830,000 00
Total	1,826,000 00

Estimates Under Acts of May 8, 1899 and May 4, 1901.

1889	$231,000 00	$101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428,661 00	173,502 00
1901	454,893 00	161,265 00
1902	272,169 00	198,913 00
	$3,331,543 00	$1,822,856 00

Miscellaneous Information to Answer the Many Inquiries Made.

City population, 325,000.
City acreage, 18,560.
Park and boulevard acreage, $1,170\frac{4}{10}$.
Parks and boulevard valuation, $10,378,900 00.
Belle Isle park is 2 miles long.
" " " has 5½ miles shore drive.
" " " has 14½ miles of driveway.
" " " has $5\frac{1}{10}$ miles gravel walks.
" " " flag staff is $146\frac{86}{100}$ feet in height.
Park and boulevard system has 15½ miles of gravel walk.
" " " " has $38\frac{1}{10}$ miles of roadway.

AREA OF LAKES.

Lake Takoma,	Belle Isle park,	15.30	acres.
" Muskoday,	" " "	34.23	"
" Okonoka,	" " "	22.56	"
" Higinio, " Frances,	Palmer park,	4.58	"
Clark park lake.....		.66	"
Voigt park lake.....		.37	"

PRINCIPAL IMPROVEMENTS.

Lakes.

Lake Takoma, Belle Isle park, 1887.....	$21,981 75	
" " " " " deepened, 1892....	5,444 55	
" " " " " " 1900....	7,019 43	
" " " " " " 1901....	4,000 00	$38,445 73
Lake Okonoka, Belle Isle park, 1888 9.....		58,658 73
" Muskoday " " " 1893		45,055 99
Lily pond, " " " 1890		2,990 15

Canals.

Loop canal, Belle Isle park, 1883	$11,182 00	
" " " " " deepened, 1901	2,500 00	$13,682 00
Nashua " " " " 1890		37,741 97

Water Mains.

Water mains, Belle Isle park, 1894-5-6	$29,623 52

Docks.

Sheltered ferry dock, Belle Isle park, 1884	12,520 65

Bridges.

Stone bridge No. 1—over north inlet to Loop canal, on Pleasure Place, Belle Isle, 1894	5,438 25
Steel bridge No. 2—over Loop canal, near Muir fountain, Belle Isle, 1892	5,962 53
Stone bridge No. 3—over Marsh Run, on Muse Road, Belle Isle, 1894	8,205 80
Stone bridge No. 5—(foot); over Marsh Run, Belle Isle, 1894	1,400 00
Steel bridge No. 6—over Loop canal, on Central avenue, Belle Isle, 1892	14,301 43
Stone bridge No. 7—over Loop canal, south of bridge No. 6, Belle Isle, 1892-3	5,852 72
Stone bridge No. 8—over outlet at S. W. corner of Belle Isle, 1894	5,462 34
Stone bridge No. 9—(foot); over outlet to lake Takoma, Belle Isle, 1894-9	1,732 61
Stone bridge No. 10—over Tokoma lake, built in 1900-1901-1902	6,847 52
Brick and stone bridge No. 11—over inlet to lake Takoma, built in 1901-2	2,464 53
Stone bridge No. 12—over south inlet to Nashua canal, built in 1900-1901-1902	3,360 84
Steel bridge No. 14—over Nashua canal, at shelter pavilion, Belle Isle. 1899-1900	4,538 35
Stone bridge No. 19—over south inlet to lake Muskoday, Belle Isle, 1894	4,578 47
Stone bridge No. 20—over north inlet to lake Muskoday, Belle Isle, 1894	3,999 62

Stone bridge No. 21—over outlet to lake Muskoday, 1894	$3,559 77
Wooden bridges Nos. 4, 13, 15, 16, 17, 18 and 22 were built many years and are now worthless.	
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9	44,786 61

Buildings.

Aquarium and horticultural building, 1900-1	49,497 82
casino, Belle Isle, 1886-7-8	19,066 45
Boathouse, Belle Isle, 1887	5,587 28
Engine house, pavilion and earth closets, Belle Isle, 1887	5,966 84
Greenhouse, Belle Isle, 1899-1900-1901-1902	16,703 25
Ice House, 1900-1	2,433 22
Music pavilion, Belle Isle, 1890-1	2,545 30
Bathhouse, Belle Isle, 1894	16,179 88
Horse shelter (old market bldg.), Belle Isle, 1894	3,110 06
Skating pavilion, Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895	12,053 21
Women's toilet (brick) Belle Isle, 1895	1,085 49
" " (stone), " " 1896	2,208 56
Picnic pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Athletic pavilion, Belle Isle, 1899	12,828 72
Police station (park board's share) Belle Isle, 1892	2,000 00
Women's toilet, Clark park, 1893	4,205 59
Men's " " " 1899-1900	2,295 00
Shelter pavilion, " " 1895	1,672 00
Picnic pavilion, Palmer park, 1895	1,167 53
Casino, Palmer park, 1896-99	11,799 73
Log waiting room, Palmer park, 1900	1,212 07

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1	8,821 82
Speeding track, Belle Isle, 1890-1	3,015 85
Fountain, Capitol park, 1896	2,351 83
" Stanton park, 1896	670 00
Horse drinking troughs, boulevard, 1896	1,606 38

Park and Boulevard System.

NAMES.	LOCATIONS.	ACREAGE.
Adelaide Campau	Campau, Mullet and Clinton sts.	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13.470
Belle Isle	Island in Detroit river	707.000
Boston parkway	Boston boulevard	2.440
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Roland sts.	.510
Cass	Second ave., Ledyard and Bagg sts.	4.966
Chicago parkway	Chicago boulevard	2.440
City Hall	Woodward ave., Fort and Michigan	.550
Clark	Dix, Scotten, Lafayette and Clark sts	31.601
Clinton	St. Antoine, Mullet and Raynor sts.	1.068
Crawford	Fifth and W. High sts	.746
Elton	Fifth and Orchard sts	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts.	.448
Macomb	17th, 18th and Rose sts	.557
Medbury	Medbury ave., John R. to Rivard sts	3.440
Opera House	Woodward and Monroe aves	.174
Owen	Jefferson ave. and river	6.990
Palmer	Woodward avenue	140.410
Parker Parkway	Parker ave, north Jefferson ave	.373
Perrien	Chene, Grandy, Hancock and Warren aves	5.180
Recreation	Brush, Brady to Alexandrine aves	1.290
Second avenue parkway	Second av. bet. Colburn pl. & R. R.	1.110
Shakespeare parkway	Shakespeare esplanade	1.640
Schiller parkway	Schiller esplanade	1.640
Stanton	17th, 18th and Porter sts	.695
Voigt	Schiller and Shakespeare esplanades	9.601
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
	Total 30 parks and the boulevard	1,171.188
Boulevard mileage		11.62

Stone bridge No. 21—over outlet to lake Muskoday, 1894	$3,559 77
Wooden bridges Nos. 4, 13, 15, 16, 17, 18 and 22 were built many years and are now worthless.	
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9	44,786 61

Buildings.

Aquarium and horticultural building, 1900-1	49,497 82
casino, Belle Isle, 1886-7-8	19,066 45
Boathouse, Belle Isle, 1887	5,587 28
Engine house, pavilion and earth closets, Belle Isle, 1887	5,966 84
Greenhouse, Belle Isle, 1899-1900-1901-1902	16,703 25
Ice House, 1900-1	2,433 22
Music pavilion, Belle Isle, 1890-1	2,545 30
Bathhouse, Belle Isle, 1894	16,179 88
Horse shelter (old market bldg.), Belle Isle, 1894	3,110 06
Skating pavilion, Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895	12,053 21
Women's toilet (brick) Belle Isle, 1895	1,085 49
" " (stone), " " 1896	2,208 56
Picnic pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Athletic pavilion, Belle Isle, 1899	12,828 72
Police station (park board's share) Belle Isle, 1892	2,000 00
Women's toilet, Clark park, 1893	4,205 59
Men's " " " 1899-1900	2,295 00
Shelter pavilion, " " 1895	1,672 00
Picnic pavilion, Palmer park, 1895	1,167 53
Casino, Palmer park, 1896-99	11,799 73
Log waiting room, Palmer park, 1900	1,212 07

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1	8,821 82
Speeding track, Belle Isle, 1890-1	3,015 85
Fountain, Capitol park, 1896	2,351 83
" Stanton park, 1896	670 00
Horse drinking troughs, boulevard, 1896	1,606 38

Park and Boulevard System.

NAMES.	LOCATIONS.	ACREAGE.
Adelaide Campau	Campau, Mullet and Clinton sts.	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13.470
Belle Isle	Island in Detroit river	707.000
Boston parkway	Boston boulevard	2.440
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Roland sts.	.510
Cass	Second ave., Ledyard and Bagg sts.	4.966
Chicago parkway	Chicago boulevard	2.440
City Hall	Woodward ave., Fort and Michigan	.550
Clark	Dix, Scotten, Lafayette and Clark sts	31.601
Clinton	St. Antoine, Mullet and Raynor sts.	1.068
Crawford	Fifth and W. High sts.	.746
Elton	Fifth and Orchard sts.	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts.	.448
Macomb	17th, 18th and Rose sts.	.557
Medbury	Medbury ave , John R. to Rivard sts.	3.440
Opera House	Woodward and Monroe aves.	.174
Owen	Jefferson ave. and river	6.990
Palmer	Woodward avenue	140.410
Parker Parkway	Parker ave , north Jefferson ave.	.373
Perrien	Chene, Grandy, Hancock and Warren aves.	5.180
Recreation	Brush, Brady to Alexandrine aves.	1.290
Second avenue parkway	Second av. bet. Colburn pl. & R. R.	1.110
Shakespeare parkway	Shakespeare esplanade	1.640
Schiller parkway	Schiller esplanade	1.640
Stanton	17th, 18th and Porter sts.	.695
Voigt	Schiller and Shakespeare esplanades	9.601
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
	Total 30 parks and the boulevard	1,171.188
B[illegible]	[illegible]e	11.62

FOURTEENTH ANNUAL REPORT

OF THE

COMMISSIONER

OF . . . .

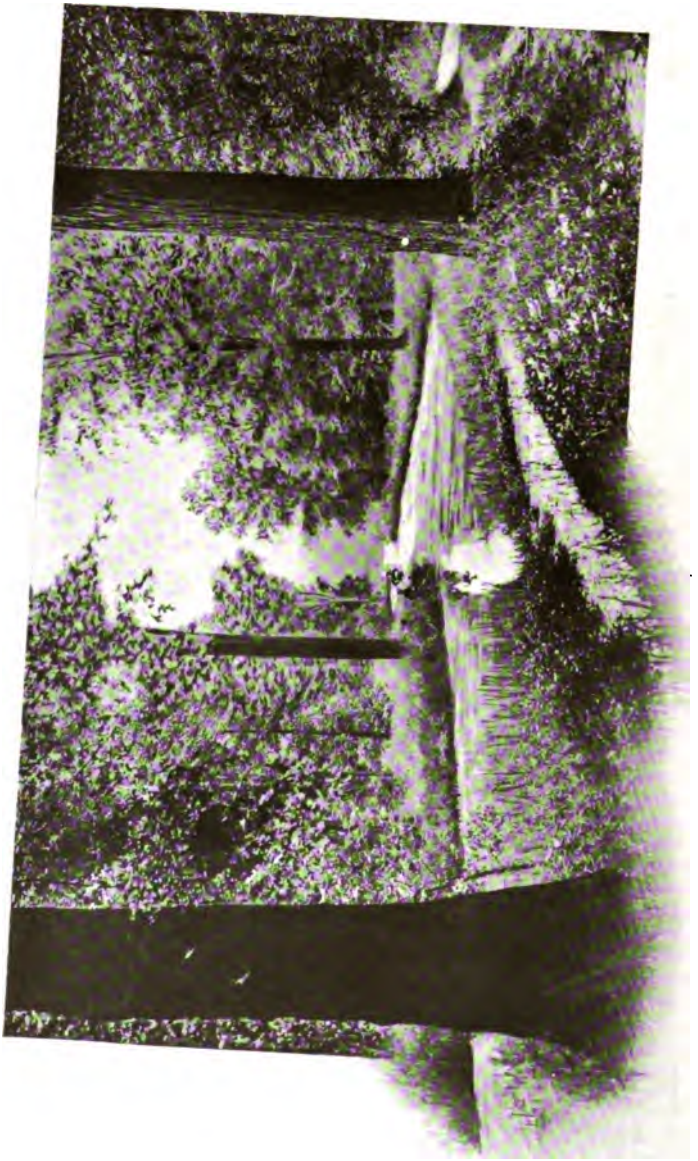
PARKS AND BOULEVARDS

CITY OF
DETROIT,
MICHIGAN,

From JULY 1st, 1902
to JUNE 30th, 1903
INCLUSIVE

R. E. BOLGER, Commissioner.
M. P. HURLBUT, Secretary.

W. D. HEALY, General Supt.
F. O. RAY, Engineer.



NASHUA CANAL—BELLE ISLE PARK.

BELLE ISLE

BEFORE the advent of the white man the Indians called our present Belle Isle "Swan Island," from the fact that it was a favorite resting place for the migratory swans.

An historical fact in connection with a legend is responsible for the second name, "Rattlesnake Island."

The first French missionaries who visited this region, found a rude stone image on the site of old Detroit, near the bank of the river, which the Indians worshipped as a Great Manitou. In shape it resembled a man and was decorated with native Indian paints to make the likeness more striking. Offerings of tobacco, maple sugar and game were scattered around its base. The superstitious Indians believed it to be possessed of great power; that it was the voice of this Manitou they heard when storms swept over the water, and that it held the winds in its hands and caused them to blow when it was angry.

The missionaries were so deeply impressed by this idolatry that they broke the idol into a thousand pieces and planted a cross in its place. They then loaded their canoes with the broken pieces of the image and threw them into the river. This is historical; the legend is as follows:

When the Indians next visited their Manitou to place their offerings and to implore success and protection from the elements while on their hunting excursions, they found only a few scattered stones. Of course, they were horrified and, for a time, almost frantic, but soon a deep, powerful voice floated over the water and gave them instructions which were faithfully carried out. Each Indian took a portion of the demolished idol to his canoe and went across the river to Swan Island, where the spirit of the Manitou had taken refuge. The voice then bade them scatter the stones along the sandy shore of the island. As soon as they had done this, each stone was changed into a rattlesnake and became a sentinel to guard the Manitou's retreat: hence the name "Rattlesnake Island." The legend says this event occurred about the year 1620.

The next name was far more pleasing to the ear. Somewhere between 1701 and 1710, Antoine de Lamothe Cadillac named it "Isle La Marguerite," in honor of one of his daughters.

After the French occupancy later in the eighteenth century, the habitants, wishing to make the island habitable, placed large droves of hogs on it to destroy the rattlesnakes. From this fact, it became known as "Ile au Cochon," Hog Island.

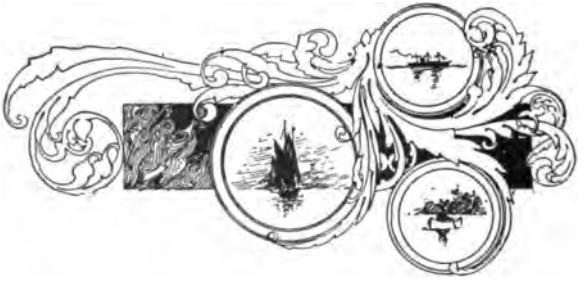
In 1768, Lieut. McDougall purchased the island from the Ottawa and Chippewa Indians for eight barrels of rum, three rolls of tobacco, three pounds of vermillion, a belt of wampum and three pounds of paint, a total value of 194 pounds sterling.

In 1773, a census was taken which shows there were on the island one man, one woman, three servants, twenty oxen, seventeen cows, thirty-two heifers, one hundred and twenty-one sheep, thirty hogs, two houses and one barn.

On July 4, 1845, a large number of people held a picnic on the island and at five o'clock on that day, a meeting was called to order, Morgan Bates presiding and Wm. D. Wilson acting as secretary. On motion of E. Goodell, it was unanimously resolved: That now, henceforth and forever, the island be known and hailed as "Belle Isle." This picnic was attended by Miss Belle Cass, the daughter of Governor Cass, and it is claimed the name was changed in her honor.

In 1879, Belle Isle was purchased for $200,000 by the City of Detroit for a public park.

The environments of Belle Isle park are rich in historical incidents.



PARK COMMISSIONERS

1871-1903

Park Commissioners Under the Act of 1871.

G. V. N. LOTHROP, ROBERT P. TOMS, A. SMITH BAGG,
JOHN J. BAGLEY, MERRILL I. MILLS, WM. A. BUTLER,
CHAS I. WALKER, CHAS. C. TROWBRIDGE.

Park Commissioners Appointed in 1879 by Mayor Langdon.

THEO. CHAPOTON, W. K. MUIR, JOHN PRIDGEON, JR.
AUGUST GOEBEL, E. T. CONELY, W. B. MORAN.

Board of Belle Isle Park Commissioners Organized September 6, 1881.

NAMES.	Appointed.	Expiration of Terms.	REMARKS.
MERRILL I. MILLS	Aug. 30, 1881	Aug. 31, 1882	
AUG. MARXHAUSEN	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
WM. A. MOORE	Aug. 30, 1881	Aug, 31, 1884	Re-appointed.
JAS. MCMILLAN	Aug. 30, 1881	Aug. 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
WM. B. MORAN	Sept. 1, 1882	Aug. 31, 1886	
AUG. MARXHAUSEN	Sept. 1, 1883	Aug. 31, 1887	
DEXTER M. FERRY	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term Jas. McMillan.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
WM. A. MOORE	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
JOS. A. MARSH	Jan. 22, 1886	Aug. 31, 1889	
ELLIOTT T. SLOCUM	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.
FRED. L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888. F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug. 1, 1888	Aug. 31, 1890	Filling unexpired term of F. L. Seitz, resigned
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept. 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, abrogating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS, and MM. B. MORAN, who were succeeded by the following

Commissioners of Parks and Boulevards :

NAMES.	Appointed.	Expiration of Term.	REMARKS.
GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTON, JR.	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21. 1889	May 31, 1893	
FRED. A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May 3, 1892	May 31, 1894	Resigned Nov. 15, 1892. James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED. GUENTHER	Aug. 1892	May 31, 1895	
WM. LIVINGSTON, JR.	May, 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug. Marxhausen appointed to fill unexpired term.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
AUG. MARXHAUSEN	Nov. 28, 1893	May 31, 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingston, Jr.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James. A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5, 1894	May 31, 1898	Resigned March 1, 1896. A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1895	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
Jas. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VAN LEYEN	June 6, 1898	May 31, 1902	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28. 1898	May 31, 1901	Resigned April 11, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904	

Under the Act of May 4, 1901, abrogating the Commissioners of Parks and Boulevards, The Commissioner of Parks and Boulevards was created.

Commissioner of Parks and Boulevards:

NAME.	Appointed.	Term.
R. E. BOLGER	May 4, 1901	June 1, 1901, to May 31, 1905.

MUSIC PAVILION OVER LOOP CANAL—BELLE ISLE PARK.

To the Honorable, the Common Council:

As required by Section 13 of Act No. 257 amending parts of chapter 19 of Charter and Laws of 1893, approved May 4, 1901, relating to parks and boulevards in the city of Detroit, I have the honor to submit herewith the fourteenth annual report of the doings of the commissioner of parks and boulevards, including the detailed statement of the secretary of all receipts and disbursements for the fiscal year ending June 30, 1903, together with an account of the work both as to maintenance and improvements in accordance with the appropriation allowed which is found in the reports of the general superintendent, engineer and botanist, all of which constitute a part and parcel of this report, that your honorable body may be fully in touch with all the acts of this commission.

Public parks are a necessity to the general welfare of cities and during the past twenty-five years, nearly every city within the borders of our great republic has established parks. It is related in the American Medicine, that the death rate in the past ten years has been reduced nearly twenty-five

per cent., attributing the change to the numerous parks and breathing places. Mr. G. A. Parker, of Hartford, Conn., reports in his park census of 1901, that of seventy-eight cities having over fifty thousand inhabitants, sixty-seven cities have 2,360 parks and squares, the total area of which as given amounts to 59,717 acres at a valuation of $531,571,947.00, there having been expended for the past year's improvements $4,555,213.00 and for maintenance $4,349,150.00.

Hon. Seth Low, late president of Columbia University and now mayor of New York, in speaking of good government among other things said: "It means that there shall be small parks and play grounds everywhere for old and young alike; that all the children of New York may have something like an even chance to grow up into strong, healthy, God loving and God fearing men and women. Light and air are the gift of God and the folly or greed of men should not be permitted to rob one child of enough of these."

Acquisitions: By resolution of your honorable body under authority of an act to amend Section 15 of Chapter 19 of an act relating to parks and boulevards approved June 3, 1901. Lafayette avenue as laid out was made a boulevard and a part of the system of parks and boulevards of the city of Detroit, as recorded on pages 707, July 15, and 859, Aug. 16, 1902 Journal of the Common Council.

City Storage Yard and Barn: A storage yard and barn within the half mile circle is a much needed improvement. The maintenance of the city parks and boulevards requires some ten or twelve horses. If they are kept at Belle Isle park, half of each day is consumed in coming from and returning to the island. For several years a barn has been rented, but no yard.

A lot of sufficient size could be purchased and a barn constructed for about $10,000.

Engineering Department: This department, in addition to its routine work, has done much toward completing the records, which are of vital importance to the future of the park and boulevard system.

Barns, Horses and Vehicles: The economical work of maintenance and improvement of this commission depends largely upon this department. Not only does it require horses and vehicles, but a proper place in which to care for the horses and house the many vehicles which are essential in the proper maintenance of the system. A large shed for their protection is a dire necessity.

The equipment generally is in good condition. July 1, 1902, there were in the possession of the commission forty-eight horses. Eleven horses were purchased for $1,725.00; two died, one from an injury, the other from azotoria, and eight horses were received in exchange for twelve, paying $75.00 difference, and an exchange of two horses was made for two others, receiving $25.00 in addition. June 30, 1903, fifty-three horses were in the possession of the commission.

Nursery: The establishment of a nursery has proved a profitable investment.

There were taken from the nursery and planted on the parks and boulevards this spring 5,252 shrubs and trees and from the propagating house 22,794 bedding plants, the market value of which, if purchased, would have been $2,418.07, while the appropriation for the fiscal year was but $2,000, showing a money gain of $418.07.

9 A M.

CHILDREN'S MERRY-GO-ROUND--BELLE ISLE PARK.

4 P M

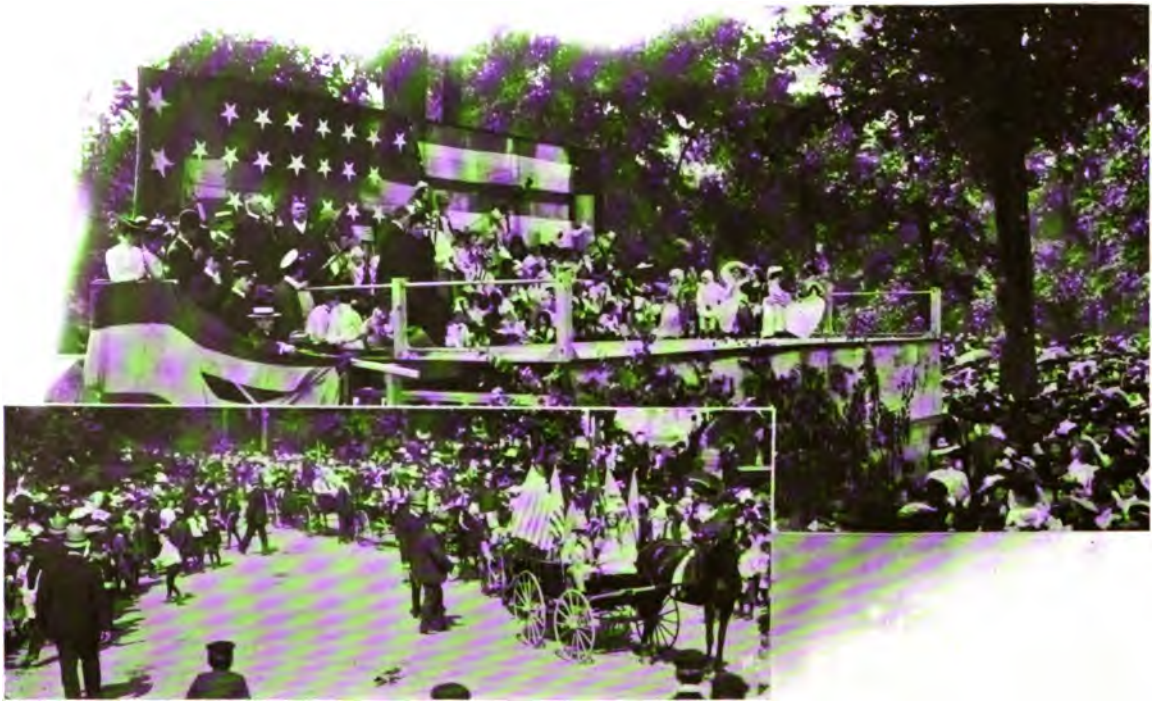
At the present time there are growing in the nursery, 25,588 shrubs valued at $3,804.96; 359 evergreens valued at $846.00; 1,121 herbaceous plants valued at $138.75 and 10,778 trees valued at $3,196.10 or a total of 37,846 trees and shrubs worth at a low estimate $7,985.81. In addition to this, there were rooted in the propagating house and placed in the nursery this spring 48,587 plants.

Greenhouse Department: For several years past, the attention of your honorable body has been called to the condition of the old greenhouses, but still the new range remains in an incomplete state. It was hoped that at least two houses might have been provided yearly until the six required had been finished. The old houses are now in such a condition that money spent on them for repairs is thrown away.

Carpenter Department: The past fiscal year has been a busy one in this department owing to the unusual repairs required upon many of the old wooden structures, which it is hoped will soon be replaced by permanent ones.

Band Concerts: The open air band concerts are not only popular, but beyond all question very beneficial to many; enough can hardly be said in their favor, as they induce many of our citizens to spend an hour or two in the open air, who otherwise would not spare the time from their stuffy offices and homes. From July 4 to September 1 last, one hundred and eleven concerts were given, the band being composed of twenty-nine musicians.

Children's Day: This day, above all others, is one that delights the children of our city. The first children's day was given May 26, 1900, and each year since, one day has been set apart for the purpose, when special features are given for their amusement. This year, Wednesday, June 3, was observed in this way; the special features consisted of a parade of nations representing twenty-three



PARADE OF NATIONS. OTHER EXERCISES.

CHILDREN'S DAY--BELLE ISLE PARK.

countries in which fifty children participated, each wearing a costume and bearing the flag of the respective country, planting of children's day tree, fancy dances, singing of American airs by four hundred children and vaudeville acts, which greatly pleased the little ones. It is estimated that at least 75,000 enjoyed the exercises of the day.

Aquarium and Horticultural Building: This combined building covering a ground space of about 40,000 square feet is well under way. The building will soon be completed. The heating and power plant is in operation and it works to perfection. The fittings of the aquarium, i. e., the tanks and piping for the different kinds of fish, (some requiring sea water, others refrigerated water and still others water of natural temperature), the pumps for the different kinds of water, the refrigerating and tempering plant and last but not least the filtering plant (as all the water must be filtered) are yet to be installed, plans and specifications for which are now nearly completed and proposals for the work will soon be solicited. It is my intention to open the aquarium and horiculturial building to the public this fall, if possible.

Engine and Crusher: There were added to the general equipment of the system a twenty-five horse power engine and a large portable stone crusher, both of which materially assist in economical maintenance.

Belle Isle Park: On Lakeside Drive over the inlet to lake Okonoka, a permanent bridge of stone was constructed, known as bridge No. 18, the contract price being $4,270.00. As much of an implement shelter was built as the money allowed would permit. This is one of the much needed improvements, for in it will be housed the wagons and implements used in the work of the commission, and I am anxiously awaiting an appropriation to complete it.

Between bridges 6 and 7 over Loop canal was constructed a permanent music pavillion, the contract price being $2,490.00.

PLANTING CHILDREN'S DAY TREE--BELLE ISLE PARK.

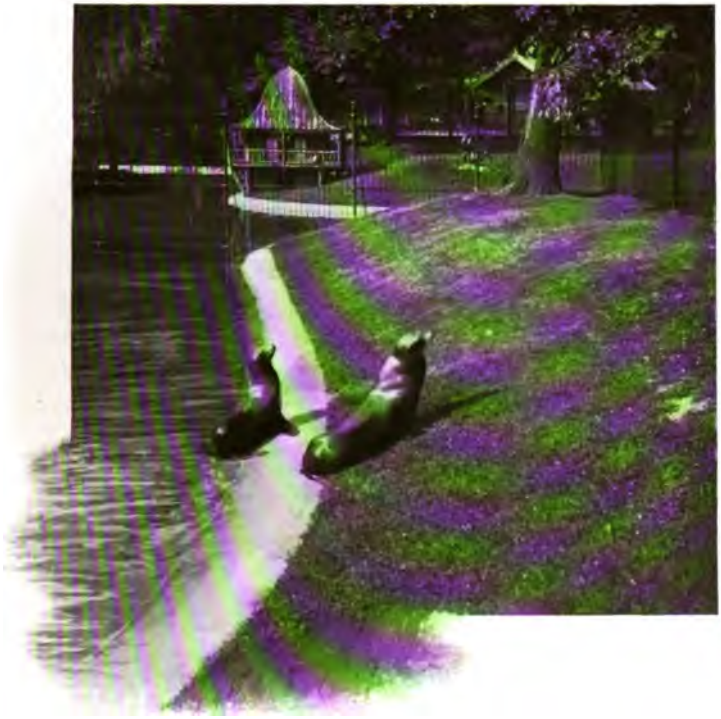
A frost-proof storage cellar was added to the new greenhouses, for the storage of plants, bulbs and roots.

One tufa ice-water drinking fountain was erected on the south side of Central ave. east of Picnic Way.

The athletic field was changed from its old location and placed in the thirty-acre field south of the athletic building and four base ball diamonds provided as well as other grounds for basket ball, lawn tennis, etc.

The zoo lake was concreted and a portion of it fenced off for water animals, in which I placed a pair of sea lions.

The zoological department is one that is greatly appreciated by both old and young, judging by the crowds that are constantly seen there; therefore, I am of the opinion that specimens should be added each year. The most needed improvement now is a large shelter for the deer family.



SEA LIONS IN ZOO—BELLE ISLE PARK.

Animals to be seen at the Zoo :—

5	Alligators	Alligator Mississippienis.
3	Buffaloes	Bison americanus.
2	Bears, polar	Thalarctos maritimus.
1	" grizzly	Ursus horribilis.
2	" black	Ursus americanus.
2	Badgers	Taxidea americana.
1	Buzzard	Catharter aura.
1	Duck, wood	Aix sponsa.
2	" Mandrin	Aix galericulata.
19	Deer, Virginia	Cariacus virginianus.
1	" red	Cervus elaphus.
2	" brown fallow	Cervus dama
1	" white fallow	Cervus dama.

Animals to be seen at the Zoo—*Continued:*

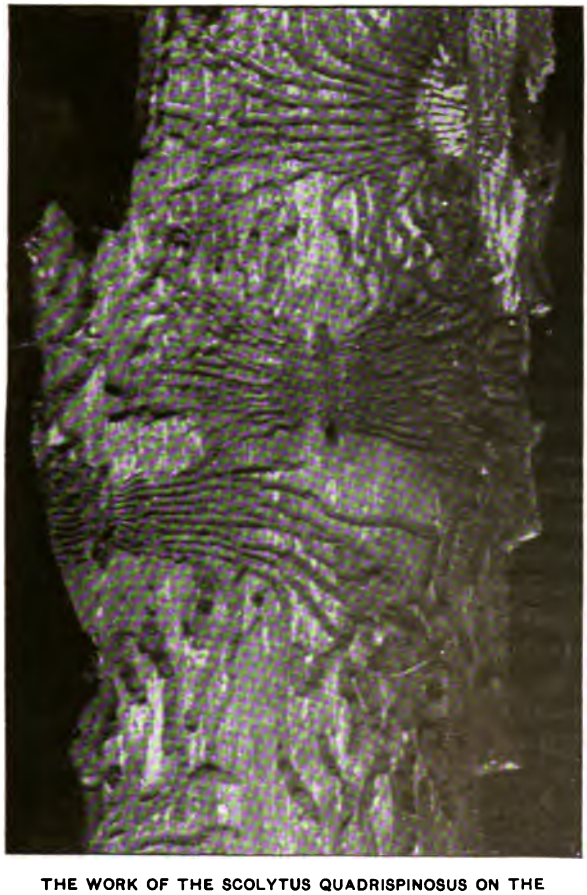
2	Deer, mule	Cariacus macrotis.
1	" black tail	Cariacus columbianus.
2	" Sambur	Cervus aristotelis.
2	" axis	Cervus axis.
9	Elk	Cervus canadensis.
1	Eagle, bald	Haliaetus lencocephalus.
1	" golden	Aquila chrysaetos.
1	Fox, red	Canis valpes fulvus.
6	Geese, wild	Branta canadensis.
2	" Poland	
5	Guinea fowl	Numida meleagris.
3	Guinea pigs	Caviidae cutleri.
1	Lynx, Canada	Lynx canadensis.
1	" bay	Lynx rufus.
1	Moose	Alces alce.
3	Ostriches	Struthio camelus.
6	Owls, horned	Bubo virginianus.
12	Prairie dogs	Cynomys ludovicianus.
6	Pheasants, Amherst	Chrysolophus amherstiae.
3	" golden	Chrysopholus pictus.
8	" ringnecked	Phasianus torquatus.
1	Peafowl	Pavo cristata.
6	Raccoons	Procyon lotor.
9	Rabbits, English	Lepus cuniculus.
2	Sea lions	Zalophus Californianus.
6	Swans, white	Cygnuo olor.
2	" black	Chenopis atrata.
1	Turkey, white	Meleagris gallopovo mexicana.
2	" bronze	Meleagris gallapavo mexicana.
2	Wolves, gray	Canis lupus.
5	" timber	Canis lupus.
1	" Coyotte	Canis latrans.
2	Zebu Cattle	Bos indicus.

Also a large number of quail, pigeons and squirrels at large on the park.

The deepening and cleaning of Loop canal was finished, which materially assists in causing a flow of water in this canal, although to make it a success, Nashua canal, the feeder from lake Okonoka at the east end of the park must be deepened and cleaned before good results will be obtained.

I have had placed in the picnic grounds a small merry-go-round for children which is a great success.

The hickory trees on Belle Isle park have been dying in great numbers in past years. Early in the year, I obtained the services of S. Alexander, botanist, who dis-



THE WORK OF THE SCOLYTUS QUADRISPINOSUS ON THE HICKORY TREES ON BELLE ISLE PARK.

covered hickory bark boring beetles in great numbers. I then took the matter up with Profs. C. F. Wheeler and R. H. Pettit of the Michigan Agricultural College and later with the United States Agricultural Department at Wash-

ington, D. C., and through the kindness of Chief J. B. Sudworth of the division of forestry investigation, Dr. A. D. Hopkins, entomologist visited Belle Isle and made a lengthy report which was transmitted to your honorable body, as recorded on page 395 Journal of the Common Council, May 5, 1903. In accordance with the recommendations of Dr. Hopkins, Profs. Wheeler, Pettit and S. Alexander, the affected trees have been cut down and taken from the park.

The brick building purchased by the city with the strip of land at the Jefferson avenue bridge approach has been remodeled into a waiting room including a lavatory for women.

The roads and walks have been re-surfaced as far as possible with the money appropriated for the purpose.

Many other minor improvements have been made.

It was found that the casino building was in a dangerous condition, as per the report of the building inspectors transmitted to your honorable body, as recorded on page 45, Journal of the Common Council, Jan. 27, 1903. With the money allowed by the council, the casino has been made temporarily safe.

An act was passed by the legislature to bond the city for $100,000 for a new casino, and it is hoped that your honorable body will take such action as is required to cause the bonds to be issued, that the work of constructing the new casino may be commenced and the building completed in the spring of 1905 for the use of the public, by which time the temporary repairs to the old casino will have outlived their usefulness.

The phaeton service was kept at the usual standard and during the year 268,598 passengers were carried across the bridge and 26,365 around the park, or a total of 294,963. The receipts from this department were $10,653.34.

The bathhouse was well patronized during the season. There were 4,275 female, 24,855 male bathers in the pay department and 9,929 male bathers in the free department or a total of 39,059; the receipts being $2,313.70.

There were 3,300 tons of ice put up at a cost of $657.90 for use in the ice water drinking fountains on Belle Isle, Palmer, Clark and city parks.

The maintenance of Belle Isle park has been carried forward as economically as possible with the funds for the purpose, but owing to the increased popularity of the park, the cost of maintenance necessarily increases yearly.

Palmer Park: A women's toilet building was built of tufa rock near the log cabin; the rustic appearance of the tufa rock giving a rural and pleasing effect.

ICE WATER DRINKING FOUNTAIN—BELLE ISLE PARK.

A new sewer which was badly needed was built from the barn east to the main sewer and a number of iron settees were provided for the park.

The arboretum was not neglected, many new specimens having been added to it, details of which will be found in the botanist's report.

A new ice water drinking fountain was erected at the Woodward avenue entrance to the park near the log waiting room.

I again call your attention to the necessity of having city water at this park, hoping some action may be taken that will induce the Highland Park Village to extend the Woodward avenue main to the Six Mile road, where it will connect with the south end of the Palmer park main.

I also want to urge upon your honorable body the necessity of lighting Palmer park with electricity.

The general maintenance of the park has been kept at the highest point possible with the money appropriated for the purpose.

Clark Park: The improvements of this park consisted in deepening and cleaning the lake on the east side, cementing the bottom and cobbling its border some 12 feet in width.

Many other minor improvements were made.

In the new portion which was purchased last fiscal year, a sewer has been placed, the ground graded and leveled off and three base ball diamonds are now under construction, which I hope will be ready early in July.

The maintenance of this park has been kept to its usual high standard.

City Parks: In Owen park, the improvements have been carried forward in accordance with the appropriation.

In Campau park, a new cement walk was placed through the park, which materially aids in keeping the park in a tidy condition. An ornamental ice-water drinking fountain was erected just west of the display fountain.

In East Grand Circus park, east of the display fountain, an ornamental ice-water drinking fountain was built of tufa rock.

In Macomb park, I have constructed a display fountain so far as the money allowed would permit.

In all the other small parks, small improvements were made and the maintenance of all the city parks was carefully looked after.

Grand Boulevard: The roadway from Woodward avenue to Beaubien street and from Gratiot avenue to Farnsworth street was resurfaced, the stone for the purpose being crushed by the crusher owned by the commission. The crusher was run 102 days and turned out 4572 cubic yards.

A surface sprinkling pipe system was laid in the lawn from Woodward to Holden ave., which materially assists in the economical maintenance of this portion of the boulevard.

The planting of trees was done so far as the money allowed would permit.

The catch basins along the roadway from Fort street to Dix ave. were rebuilt where required.

The roadway from 27th street to the west side of Vinewood ave. along what was formerly Myrtle street, was macadamized at a cost of $7,000.00.

Many other needed improvements have been made.

The maintenance of the boulevard requires a great deal of attention, as it covers a large territory but I feel it has been kept in as a high a state of cultivation as is consistent with the money at my command.

Respectfully submitted,

R. E. Bolger,
Commissioner.

M. P. Hurlbut,
Secretary.

June 30, 1903.

PORTABLE ENGINE AND STONE CRUSHER.

GENERAL SUPERINTENDENT'S REPORT

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:---The following report will give in detail the principal parts of the work carried on under my supervision in the department during the past year:

Boulevard: Certain sections of the boulevard, being the most in need have been resurfaced and brought to the proper grade which has required from 4 inches to 6 inches of crushed cobble. The sections improved were from Woodward avenue to Beaubien street and from Gratiot avenue to Farnsworth street, the total area of which is 9,700 square yards.

Owing to the impaired condition of the roads, the expense of resurfacing has reached a maximum and from the amount appropriated for the purpose, only a limited portion could be improved.

The new stone crusher purchased last year has given complete satisfaction, having doubled the quantity produced,

particularly in the finer bonding stone. This addition to our equipment makes it possible for the work of road building to be done at a far lower figure than the same can be contracted for and is therefore, a very profitable investment.

That section of the boulevard known formerly as Myrtle street was paved with a Talford macadam from the easterly

PARK REST AND PHAETON TICKET OFFICE.
ENTRANCE TO BELLE ISLE PARK

line of the Western Grand Boulevard to the west line of Vinewood avenue excepting Myrtle and 27th streets intersections, which were paved with brick owing to the fact that these intersections were the only outlets for the manufacturing district just north of the boulevard and are consequently subjected to very heavy traffic. This section was laid out with a circular roadway with low curbs bulnosed so as to be visible for but three inches. The lawns were graded up in such a manner as to give the section more of a park-like effect and

adds another link toward connecting the two sections of western grand boulevard.

The grade of Vinewood avenue intersection required to be entirely changed to conform to the circular roadway and all curbing was redressed and properly set in concrete.

In the center lawn between Woodward and Holden avenues, a surface water system was put in, a large connection being made at each end, thereby obtaining an ample supply to permit of several sprinklers being used at any one time.

A large number of elm trees were set out on the Northern Grand Boulevard to replace smaller ones and also to produce a more uniform appearance.

PICNICING---BELLE ISLE PARK.

On the eastern roadway of the Western Grand Boulevard between Fort and Porter streets, the old style receiving basins were replaced with a more modern pool grate which sits level with the roadbed; this does away with the unsightly stone basins formerly used and permits of the lawns being evenly graded, which renders them unobserved.

Many large beds of flowering plants were added to the boulevard, but owing to the lateness of the season and the continuous rain fall, much damage was experienced and disappointment was the result. The shrubs were well cared for, as owing to the thrifty growth obtained from the thorough mulching given last season, considerable pruning was found necessary.

Considerable expense is occasioned by the deterioration of cement sewer pipe, which has been extensively used in the past, and the repairing, which of late has become quite fre-

quent, has been somewhat of a burden to the maintenance fund.

The drains in general, on the park system, are gradually filling with a thick growth of fine tree roots, which is not only impairing their service, but in many instances required the taking up of many hundreds of feet of pipe.

Clark Park: Of our many parks, Clark is visited by more people than any with the exception of Belle Isle and therefore receives a generous amount of general wear so that quite a portion of the maintenance is required to keep the lawns in good condition. It was found necessary to purchase a new horse mower for this purpose.

Quite a large section around the lakes and also south of the women's toilet were considerably below the road level and was filled in with loam. This sort of improvement is being done as fast as the material can be obtained and is done without any expense save the labor in spreading same.

The roadway between both lakes extending from both the roads on the north to the fork of roads near the women's toilet was macadamed with crushed granite. The grade was raised sufficiently to keep it dry during all seasons.

The shrubbery has greatly improved during the past year, which I attribute to the pruning and the liberal amount of mulching given them.

The fountains were thoroughly scraped and were given two coats of paint.

The east lake was cleaned out and concreted in the same manner as the west lake which was improved last year. This, with the filling done around the lake, tends to effect a most sanitary condition.

The addition to Clark park, to be known as an athletic field, has been improved for that purpose by grading the entire section which required the removal of about 4,500 cubic yards of earth. There is ample space for two base ball diamonds and other athletic games, and when completed will be greatly appreciated by the athletes of this section of the city.

The men's toilet was repaired and put in condition to stand the frost, as it has become necessary to keep it open during the winter.

Grand Circus Park: A large drinking fountain was erected in the east side, the location selected being as near the center of the park as possible and not obstruct the view to the display fountain. The water is cooled by a coil of pipe laid in an ice receptable which has a capacity of about three tons.

ICE WATER DRINKING FOUNTAIN, DISPLAY FOUNTAIN, ADELAIDE CAMPAU PARK.

It was found necessary to do considerable sodding owing to the severe wear the lawns receive around the seats and particularly along the sides of the walk. This is an expense yearly that could be dispensed with were there an appropriation allowed to rebuild and drain the walks that they would be passable during the wet seasons.

The display fountains were cleaned and given two coats of paint. I would suggest that these ancient style of fountains be replaced with more modern ones.

The shrubbery was well cared for, great precaution being taken that each variety receive the pruning characteristic to them, that the best possible results might be obtained.

Owen Park: It was thought possible to complete the grading in this park during the past year, but owing to the scarcity of soil for finishing much of it had to be purchased and about 4,500 cubic yards of earth has been added to bring up the grade as established by you. One needs only to see the great improvement it has made. There were about 5,000 cubic yards of filling added to the water front which has brought this section to within about 50 feet of the line decided upon for sheet piling.

Owing to the limited amount appropriated compared to the great amount of work required to grade the park properly, most of the material for filling had to be obtained gratis, which has consumed more time than had the same been purchased. I estimate at this date that about two-thirds of this work is completed.

Poplar trees with an average diameter of 6 inches were put in on the east line for the entire length, which will, when they fill out, cut off the objectionable view of the buildings to the east of the park.

Campau Park: A rustic drinking fountain was constructed in this park of tufa rock, built in a manner to permit of ornamental planting and has a water cooling device such as is used universally on the park system.

An appropriation of $1,020 was made for the construction of cement walks. These were laid through the park including the cross street walks and intersections, which together with the ornamental drinking, and the new display fountains constructed last year, makes this park the most complete of any of the system.

Belle Isle Park: An ornamental drinking fountain was erected last season on the south side of Central avenue, midway between Muse road and Inselruhe avenue of tufa rock and so designed as to permit of a liberal amount of decorative planting.

The swan lake was entirely drained and allowed to dry and the muck surface removed; the bottom was slagged to a depth of 6 inches and concreted with a smooth trowel finish to a grade of 6 inches above the water level at the edge of which has been made a header that forms a part of the concrete and extends 12 inches into the clay, which serves for

BRIDGE No 18, LAKE SIDE DRIVE—BELLE ISLE PARK.

the purpose of preventing the surface water from running under the concrete to avoid the damage resulting from frost. The lawns surrounding this lake were gracefully graded and sodded. The lake was divided by an iron fence which extends 4 feet above the ground level, the pickets extending through the concrete bottom for a depth of 12 inches. The west half of lake is occupied by the two sea lions which were added to the zoo this spring.

Inselruhe avenue from Central avenue south to the Strand and the Strand from bridge No. 10 to Inselruhe avenue were

macadamed with crushed cobble, the length of which is 1,840 feet and the area is 8,250 square yards. The sections completed add quite an area to a greatly needed improvement. The roadways approaching to bridges No. 19 and 20 were also paved with macadam and the grade was raised to better meet the elevation of the bridge, thereby overcoming the abrupt ascent and descent which has formerly existed.

A music pavilion was erected spanning Loop canal between bridges No. 6 and 7. It is similar in style to a bridge having stone abutments with arches and steel girders; in design it is Rennaisance with a tasty frame superstructure and has a seating capacity for fifty musicians. The approaches were suitably planted with shrubbery.

Bridge No. 18 on Lakeside Drive over lake Okonoka was built in accordance with the plans and specifications with rubble and dressed sand stone being materially different in design from any other bridge on the island.

1,140 feet of surface water pipe was added to the sprinkling system along Riverside driveway.

Many of the dead and dying hickory trees were removed from the picnic grounds. This work will be continued from time to time until they are entirely removed.

A portion of the shed for the shelter of vehicles, farm implements, etc. was constructed of steel with concrete floor and slate roof. This is an improvement that is so much needed that I hope it may soon be completed.

Macomb Park: Much has been done during the past year to complete the improvements in this park. The fountain basin which was constructed last year was finished with a coping of rough boulders set on edge and a guyser placed in the center.

All dead wood was removed; lawns graded and sodded; new walks built of fine crushed stone, which completes all the improvements required at the present time.

Palmer Park: At the Woodward avenue entrance to the park, a tufa rock drinking fountain was completed of an ornamental design which will be greatly appreciated.

A women's toilet was built near the log cabin at the entrance to the picnic grounds. It is constructed of brick ornamented with tufa rock and is suitably located just within the edge of the forest.

The dead wood and underbrush and particularly the dangerous limbs in the forest were taken out. The entrance to the park from Woodward avenue to the fork in the road running north and west was planted on both sides with a variety of flowering plants which makes a very pleasing effect.

Smaller Parks and Parkways: All the smaller parks and parkways, viz: Boston, Cadillac, Capitol, Cass, City Hall, Clinton, Crawford, Elton, Harmonie, Medbury, Opera House, Perrien, Recreation, Stanton, Second Avenue, Washington and West Park received their usual amount of care. The lawns were sodded where needed. The walks were edged up and resurfaced where required. Much attention was given in the direction of decorative planting and many additional beds of flowering plants were made in the parks which gave a very pleasing effect, and there would have been much better results, had the weather been more favorable in the early part of the season.

Nursery: The inventory shows that there are on hand in the nursery 25,588 shrubs and evergreens, 1,121 herbaceous plants and 10,778 trees. Total 37,846, besides 48,587 plants that were rooted in the propagating house and set out this spring. In addition, there were raised in the greenhouse 22,794 bedding plants.

There were taken from the nursery and propagating house 5,252 trees and shrubs and 22,794 bedding plants and planted on the park and boulevard system where most required.

Respectfully submitted,

W. D. HEALY,
General Sup't.

ICE WATER DRINKING FOUNTAIN—GRAND CIRCUS PARK, EAST SIDE.

ENGINEER'S REPORT

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—The following report will give you the work done in the engineering department during the past fiscal year:

In accordance with your request, plans, profiles, estimates and specifications were prepared for the following improvements: The paving of Western Grand Boulevard known as Myrtle street from the east line of the Western Grand Boulevard to the west line of Vinewood avenue and the setting of grades for the lawns of same; the preliminary plans and estimates for improving the section from Fort to River street; also for the grading done on the athletic field at Clark park; lines for walks were established in Campau and Macomb parks; surveys were made, offset stakes set and grades given for the wagon shed and bridge No. 18 on Belle Isle park; estimates were made and grades set for a surface water system on Northern Grand Boulevard between Woodward and Holden avenues. Great precaution was taken that suitable blow-off cocks for the proper drainage of the pipes were put in connection with catch basins.

The work of keeping up the department record books has been carried on as in the past.

In addition, this department has had charge of the entire water system on the Grand Boulevard and city parks comprising some nine miles of pipe. Unusual care was given last fall in shutting off the system, with the result that no repairs were required this spring.

Respectfully submitted,

F. O. RAY,
Engineer.

WOMEN'S LAVATORY (BUILT OF TUFA)—PALMER PARK.

BOTANIST'S REPORT.

November 1, 1902.

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR :—I herewith present my report of the examination of trees and shrubs on the park system, including the arboretum of Palmer park and the work accomplished.

The first planting of the arboretum was made in the spring of 1900. From the records and from the dead plants still standing in the ground, I infer that the original collection was quite complete. Owing to the bad condition of many of the plants and other causes, fully one-half of all the species have died and many individuals of the remaining groups have also disappeared. This depletion left about one hundred and ten species. Of these plants, many were in fine condition while others were lanquishing. For the purpose of adding to the good plants, reestablishing those that were dead and for farther completing the collection, about five hundred trees and shrubs, consisting of about seventy species, have been planted under my direction. These additional trees and shrubs have been mostly collected from localities in the surrounding country.

During the past season, the water has stood to a considerable depth over a large portion of the arboretum, doing much damage to many of the plants. This condition can easily be obviated by a system of open ditches which should be made very wide and winding, so that they will appear like natural ravines, which would improve the appearance of this portion of the park.

I would also suggest that the grass be kept down as a lawn and the earth kept mellow among the small shrubs, in order that their growth may not be retarded.

PALMER PARK ARBORETUM

Consisting of Trees and Shrubs Native to Michigan.

Abies balsamea (L.) Mill .....Balsam Fir.
Acer Negundo L..... .....Box Elder.
" nigrum Michx..... .... Black Sugar Maple
† " Pennsylvanicum L..... .... Striped Maple.
" rubrum L..... ..... Red Maple.
" saccharinum L. .....SilverMaple.
" saccharum Marsh..... .... Sugar Maple.
" spicatum Lam .... Mountain Maple.
Aesculus glabra Willd..... Fetid Buckeye.
*Alnus Alnobetula (Erh.) K. Koch..... .....Green Alder.
" incana (L.) Willd ....Speckled Alder.
* " rugosa (Du Roi) K. Koch..... .....Smooth Alder.
Amelanchier alnifolia Nutt ....Northern June-berry.
" Botryapium (L. f.) D. C.....Shadbush.
" Canadensis (L.) Medic.....Service-berry.
* " oligocarpa (Michx.) Roem.....Oblong-fruited June-berry.
" rotundifolia (Michx.) Roem...Round-leaved June-berry.
† " spicata (Lam.) Dec.....Low June-berry.
†Amorpha canescens Pursh..... .....Lead-plant.
†Andromeda Polifolia L.. ....Wild Rosemary.
†Arctostaphylos Uva-Ursi (L.) Spreng.....Bear-berry.
Aronia arbutifolia (L.) Ell. .....Red Choke-berry.
" nigra (Willd.) Britton... .....Black Choke-berry.
Asimina triloba (L.) Dunal.. ....North American Pawpaw.
Betula gladnulosa Michx..... ....Scrub Birch.
" lenta L .... Cherry Birch
† " Lutea Michx. f.....Yellow Birch,
" papyrifera Marsh..... .... Paper Birch.
" pumila L..... ....Low Birch.

†Benzoin Benzoin (L.) Coulter.....Spice Bush.
†Carpinus Caroliana Walt.....Blue Beech.
*Castanea dentata (Marsh.) Bork.....American Chestnut.
†Ceanothus Americanus L.....New Jersey Tea.
†Ceanothus ovatus Desf.....Smaller Red-root.
†Celastrus scandens L.....Climbing Bittersweet.
Celtis occidentalis L.....Hackberry.
Cephalanthus occidentalis L.....Button-bush.
Cercis Canadensis L.....Red-bud.
†Chamaedaphne calyculata (L.) Moench....Leather-leaf.
*Chiogenes hispidula (L.) T. & G.....Creeping Snow-berry.
Clematis Virginiana L.....Common Virgin's Bower.
†Comptonia peregrina (L.) Coulter.....Sweet Fern.
Cornus alternifolia L. f.....Alternate-leaved Dogwood.
" amonum Mill.....Silky Cornel.
† " asperifolia Michx.....Rough-leaved Cornel,
† " Baileyi Coult. & Evans.....Bailey's Cornel.
† " candidissima Marsh.....Panicled Cornel
† " circinata L'Her.....Round-leaved Dogwood.
† " florida L.....Flowering Dogwood.
" stolonifera Michx.....Red-osier Dogwood.
Corylus Americana Walt.....Hazelnut.
" rostrata Ait.....Beaked Hazelnut.
*Crataegus altrix Ashe.....
* " borealis.....
* " breva spina Dougl.....
† " Crus-Galli L.....Cockspur Thorn.
" coccinea L.....Scarlet Thorn.
* " gemmosa Sargt.....
† " macracantha Lodd.....Long-spine Thorn.
" mollis (T. & G.) Steele.....Red-fruited Thorn.
* " oxyacantha naturlized.....
* " pastorus Sargt.....
* " prunifolium.....
" punctata Jacq.....Large-fruited Thorn.
* " Sera Sargt.....
" tomentosa (Ehrh.) Borck.....Pear Thorn.
†Diervilla Diervilla (L.) MacM.....Bush Honeysuckle.
†Dirca palustris L.....Leather-wood.
Euonymus Americanus L.....Strawberry Bush.
" atropurpureus Jacq.....Burningbush.
† " obovatus Nutt.....Running Strawberry Bush.
†Fagus Americana Sweet.....American Beech.
Fraxinus Americana L.....White Ash.
" lanceolata Borck.....Green Ash.
" nigra Marsh.....Black Ash.
" Pennsylvanica Marsh.....Red Ash.

Flaxinus quadrangula ta Michx.. ..... Blue Ash.
†Gaultheria procumbens L ....Creeping Wintergreen.
†Gaylussacia resinosa (Ait.) T. & G.....High-bush Huckleberry.
Gleditsia triacanthos L..... .....Honey Locust.
Gymnocladus dioica (L.) Koch.....Ky. Coffee Tree.
Hamamelis Virginiana L. .... Witch Hazel.
*Hicoria alba (L.) Britton..... .....White-heart Hickory.
* " borealis Ashe..... .....Northern Hickory.
* " glabra (Mill.) Britton ....Pig-Nut Hickory.
* " laciniosa (Michx. f.) Sarg't. .....Big Shag-barg Hickory.
* " microcarpa (Nutt.) Britton ....Small-fruited Hickory.
† " minima (Marsh.) Britton ..... Bitter-nut,
* " ovata (Mill.) Britton .....Shag-bark Hickory.
* " villosa Ashe ....
Hudsonia tomentosa Nutt..... .....False Heather.
Hypericum densiflorum Pursh.....Bushy St. John's Wort.
* " Kalmianum L.. .....Kalm's St. John's Wort.
" prolificum L. ....Shrubby St. John's Wort.
†Ilex verticilata (L.) A. Gray.....Virginia Winter berry.
†Ilicioides mucronata (L.) Britton.. ....Mountain Holly
†Juglans cinerea L..... ....Butternut.
" nigra L .... Black Walnut.
†Juniperus communis L .... Juniper.
* " Sabina L.....Shrubby Red Cedar.
† " Virginiana L ....Red Cedar.
Kalmia angustifolia L..... Sheep Laural.
* " glauca Ait .....Swamp Laural.
Larix larcina (Du Roi) Koch..... ..... Tamarack.
*Ledum Groenlandicum Oeder.....Labrador Tea.
Lepagyrea Canadensis (L.) Greene.....Canadian Buffalo-berry.
Liriodendron Tulipifera (L.) Britton.....Tulip Tree.
†Lonicera ciliata Muhl..... American Fly-honeysuckle.
* " coerulea L ..... Blue Fly-honeysuckle.
* " dioica L... .... Smooth-leaved honeysuckle.
† " glaucescens Rybd ....Douglas Honeysuckle.
" hirsuta Eaton..... .....Hairy Honeysuckle.
" involucrata(Richards) Banks .....Involucrated Fly-honeysuck
* " oblongifolia (Goldie) Hooker .....Swamp Fly-honeysuckle.
Malus coronaria (L.) Mill ....American Crab Apple.
Menispermum Canadense L..... Canada Moon Seed.
*Morus rubra L.. ..... Red Mulberry.
†Myrica cerifera L.....Wax-myrtle.
† " Gale L..... .....Sweet Gale.
†Nyssa sylvatica Marsh.....Pepperidge.
Opulaster opulifolius (L.) Kuntze..... .... Nine-bark.
†Ostrya Virginiana (Mill.) Willd..... .....Hop Hornbeam.
*Oxycoccus macrocarpus (Ait.) Pers .....Large Cranberry.
† " Oxycoccus (L.) MacM.....Small Cranberry.

Parthenocissus quinquefolia (L.) Planch.....Virginia Creeper.
*Picea brevifolia, Peck..... ..... Swamp Spruce.
†Picea Mariana (Mill.) B. S. P.. ....Black Spruce.
† " Canadensis (Mill.) B. S. P..... .....White Spruce.
*Pinus divaricata (Ait.) Sudw.....Labradore Pine.
* " resinosa Ait..... .....Red Pine.
" Strobus L. ....White Pine.
Platinus occidentalis L..... ....Sycamore.
Populus balsamifera L..... .....Tacamahae.
† " candicans (Ait.) A. Gray. .....Balm of Gilead.
" deltoides Marsh ..... Cottonwood.
† " grandidentata Michx. ....Large-toothed Aspen.
† " tremuloides Michx..... ... American Aspen.
Potentilla fruticosa L..... Shrubby Cinquefoil
Prunus Americana Marsh..... Wild Plum.
" nigra Ait.. .....Canada Plum.
" Pennsylvanica L. f..... .... Wild Red Cherry.
" pumila L.....Sand Cherry,
" serotina Ehrh. ....Wild Black Cherry.
" Virginiana L..... ....Choke Cherry.
Ptelea trifoliata L..... .....Three-leaved Hop-tree.
Quercus acuminata Michx.....Chestnut Oak.
† " alba L. ....White Oak.
† " Alexanderi Britton..... .... Alexander's Oak.
" coccinea Wang..... ... .Scarlet Oak.
† " imbricaria Michx..... .....Shingle Oak.
* " Leana Nutt.....Hybrid Oak.
† " macrocarpa Michx ....Bur Oak.
" palustris DuRoi .....Pin Oak.
† " platinoides (Lam.) Sudw.....Swamp White Oak.
† " prinoides Willd,... .....Scrub-Chestnut Oak.
† " rubra L..... .....Red Oak.
* " Texana Buckley ....Texan Red Oak.
† " velutina Lam.. ....Black Oak.
†Rhamnus alnifolia L'Her..... .....Alder-leaved Buckthorn.
† " cathartica L. Naturalized.....Buckthorn.
Rhus aromatica Ait ....Fragrant Sumac.
" copallina L .....Dwarf Sumac.
" glabra L .... Smooth Sumac.
" hirta (L.) Sudw..... ....Staghorn Sumac.
" radicans L..... .... Poison Ivy.
" Vernix L.... .... Poison Sumac.
Ribes Cynosbati L..... .... Wild Gooseberry.
" floridum L'Her..... .....Wild Black Currant.
* " gracile Michx .... Missouri Gooseberry.
* " lacustre (Pers.) Poir.....Swamp Gooseberry.
" oxycanthoides L. ..... .Northern Gooseberry.
" prostratum L'Her.....Fetid Currant.
" rubrum L.....Red Currant.

Rosa acicularis Lindl. ..... Prickly Rose.
" Arkansana Porter. ..... Arkansas Rose.
" Blanda Ait ..... Smooth Rose.
" Carolina L. ..... Swamp Rose,
" humilis Marsh ..... Low Rose.
" rubiginosa L. ..... Sweet Briar.
" setigera, Michx ..... Prairie Rose.
Rubus Americanus (Pers.) Britton ..... Dwarf Raspberry.
" Canadensis L. ..... Dewberry.
" hispidus L. ..... Hispid Swamp Blackberry.
" Millspaughii, Britton ..... Millspaugh's Blackberry.
" neglectus Peck ..... Purple Wild Raspberry.
" odoratus L. ..... Purple-flowering Raspberry.
" occidentalis L. ..... Black Raspberry.
" parviflorus Nutt ..... Salmon Berry.
" setosus Bigel. ..... Bristly Blackberry.
" Strigosus Michx ..... Wild Red Raspberry.
" villosus Ait. ..... High Bush Blackberry.
†Salix adenophylla Hook ..... Furry Willow.
† " amygdaloides Andres ..... Peach-leaved Willow.
" balsamifera (Hook) Barratt ..... Balsam Willow.
† " Bebbiana Sarg ..... Bebbs Willow.
† " candida Fluegge ..... Hoary Willow.
† " cordata Muhl ..... Heart-leaved Willow.
† " discolor Muhl ..... Glaucus Willow.
† " fluviatilis Nutt ..... Sandbar Willow.
† " glaucophylla Bebb ..... Broad-leaved Willow.
" humilis Marsh ..... Prairie Willow.
† " lucida Muhl ..... Shining Willow.
† " myrtilloides L. ..... Bog Willow.
† " nigra Marsh ..... Black Willow.
† " petiolaris J. E. Smith ..... Slender Willow.
* " gracilis Anders ..... Slender Willow.
† " sericea Marsh ..... Silky Willow.
† " tristis Ait ..... Dwarf Gray Willow.
Sambucus Canadensis L. ..... American Elder.
† " pubens Michx ..... Red-berried Elder.
†Sassafras Sassafras (L.) Karst ..... Sassafras.
†Smilax hispida Muhl ..... Hispid Green-briar.
* " rotundifolia L. ..... Green Briar.
Solanum Dulcamara L. ..... Night Shade.
†Sorbus Americana Marsh ..... American Mountain Ash.
" Sambucifolia (C. & S.) Roen ..... Western Mountain Ash.
Spiraea salicifolia L. ..... American Meadow-Sweet.
" tomentosa L. ..... Hardhack.
Staphylea trifolia L. ..... American Bladder-nut.

Symphorocarpos occidentalis Hook.....Wolfberry.
" pauciflorus (Robbins) Britton..Low Snowberry.
" racemosa Michx..... Snowberry.
" Symphorocarpos (L.) MacM..Coralberry.
†Taxus minor (Michx.) Britton ..... American Yew.
Thuja occidentalis L..... ....White Cedar.
Tilia Americana L..... .....Bass-wood.
†Tsuga Canadensis (L.) Carr.....Hemlock.
Ulmus Americana L.....American Elm.
" Fulva Michx .....Slippery Elm.
" racemosa, Thomas.....Cork Elm.
Vaccinium atrococcum (A. Gray) Heller ...Black Blueberry.
" Canadensis Richards ..... Canada Blueberry.
" corymbosum L.....High-bush Blueberry.
* " membranaceum Dougl..... Thin-leaved Bilberry.
* " nigrum (Wood.) Britton... .....Low Black Blueberry.
* " ovalifolium J. E. Smith ....Tall Bilberry.
" Pennsylvanicum Lam ..... Dwarf Blueberry.
* " uliginosum L..... ..... Great Bilberry.
" vacillans Kalm..... ..... Low Blueberry.
Viburnum acerifolium L..... Maple-leaved Arrow-wood.
" alnifolium Marsh... .... Hobble-bush.
" cassinoides L ....Withe-rod.
" dentatum L ... . Arrow-wood.
† " lantanoides Michx.....Hobble-bush.
" Lentago L. .... Nanny-berry.
" Opulus L. .....Cranberry-tree.
* " pauciflorum Pylaie..... .....Few-flowered Cranberry-tree
" prunifolium L.....Black Haw.
" pubescens (Ait.) Pursh..... .....Arrow-wood.
" _____?.....Possibly Viburnum nudum.
†Vitis bicolor LeConte. .....Winter grape.
" Labrusca L .....Northern Fox-grape.
" vulpina L.....Riverside Grape,
Xanthoxylum Americana Mill ....Prickly Ash.
†Xolisma ligustrina (L.) Britton .....Privet Andromeda.

NOTE -* Yet to be supplied.
† Added in 1902.
Arboretum established in 1900.

The above list of Michigan trees is probably not complete. I have omitted to give the name of some trees which seem to belong to the flora of the state, but about which there is some doubt; the future will have to decide.

What the number of distinct species of trees and shrubs in Michigan may be is somewhat uncertain. The flora of Michigan published in 1892, gives the number of trees and shrubs indiginous to the state as 220 and 8 naturalized; this makes the total 228. Since the publication of that work, there have been three new species discovered; one oak and two thorns, and several old species have been added. The Quercus Leana is reported from Jackson County and Mr.

ICE WATER DRINKING FOUNTAIN--PALMER PARK.

Geo. B. Sudworth informs me that he has seen the Quercus Texana growing in the southwesterly portion of the state.

Prof. Britton gives Michigan as a part of the range of some shrubs not mentioned in the flora of Michigan. There is also a hickory found growing on Belle Isle park by Mr. O. A. Farwell not reported in that work.

The writer discovered, some years ago, a remarkable forest of hybrid black oaks growing just outside and to the north-westerly of Palmer park. They have puzzled some of the best botanists of the country.

The general appearance of these trees shows clearly that they are the result of a cross between the Quercus palustris DuRoi (Pin oak) and the Quercus coccinea Wang (Scarlet oak); it has the smooth bark, drooping habit of the lower limbs and general appearance of the Pin Oak with the fruit and leaf of the Scarlet Oak. There are many hundred of acres of land covered chiefly with this tree which shows that it has become established as a species which freely reproduces itself. The Thorns, Roses, Blackberries and Raspberries are being split up into more species than formerly. I think that in the near future the number of distinct species of trees and shrubs of Michigan will be increased to at least 250.

It has often been suggested to me by the teachers and students of botany of the city that it would be well to establish a general botanic garden in connection with the arboretum. I heartily endorse this suggestion; it would cost but little as those interested would contribute plants to the collection.

The pupils of our schools who are studying botany have to be contented with reading what books say about plants and looking at them from a distance. And when they go beyond the confines of the parks. they see the signs: "No trespassing" posted on the farm fences. We have the ground and we have the plants for providing these young people with the means for studying a branch which they are compelled to pursue.

The forest of Palmer park is generally in a very fine condition. Some old trees have been blown down during the past season. This is due to the fact that they were usually rotten in the interior as a result of old age. I think it is safe to predict that no such destruction will occur again for many years to come. To take the place of these fallen trees, there is an immense growth of young timber coming on rapidly. This young growth is in a most excellent condition. I urgently suggest that for the perpetuation of this fine forest that no draining of the ground nor the cutting out of the young undergrowth should ever be permitted. Leave all the natural

conditions which produced the presents atisfactory condition of things.

Palmer park is, scientifically, very interesting from the fact that within its confines there is a meeting of two distinct florae; that of the "oak openings" and that of the timbered land. The line of meeting of these florae is just within the forest near the greenhouse. This condition gives Palmer park a richer flora than that of any other like sized piece of land in the state. Within the limits of this park, I have discovered 116 distinct species of trees and shrubs and several hybrids.

MARSH RUN—BELLE ISLE PARK.

I warmly urge that the small oak forest on the northerly end of Palmer park be forever kept intact for the purpose of rescuing from total extinction the flora of the sand dune region, which is so rapidly disappearing.

I wish to remind you and through you, the people of Detroit, that the forest of this park is one of the few remaining bits of the primitive forest of this portion of the state. It should be well cared for.

Following is a list of the indiginous trees and shrubs found on Palmer park :

TREES AND SHRUBS NATIVE TO PALMER PARK.

Acer saccharinum L. ..... Silver Maple.
" sacharum Marsh ..... Rock or Sugar Maple.
" rubrum L. ..... Red Maple.
Amelanchier Canadensis (L) Medic. ..... June or Service-berry.
Aronia nigra (Willd.) Britton ..... Black Chokeberry.
Benzoin Benzoin (L.) Coulter ..... Spice Bush.
Betula lenta L. ..... Cherry Birch.
" papyrifera Marsh ..... Paper or Canoe Birch.
Carpinus Caroliniana Walt. ..... Blue Beech.
Celastrus scandens L. ..... Shrubby Bittersweet.
Cephalanthus occidentalis L. ..... Button-bush.
Cornus alternifolia L. f. ..... Alternate-leaved Cornel.
" amonum Mill. ..... Silky Cornel.
" candidissima Marsh ..... Panicled Cornel.
" Florida L. ..... Flowering Dogwood.
" stolonifera Michx. ..... Red-osier.
Corylus Americana Walt. ..... Hazel-nut.
Crataegus Crus-Galli ..... Cockspur Thorn.
" coccinea L. ..... Scarlet Thorn.
" macracantha Lodd ..... Long-spine Thorn.
" mollis (T. & G.) Steele ..... Red-fruited Thorn.
" tomentosa L. ..... Pear Thorn.
Diervilla Diervilla (L.) MacM. ..... Bush Honeysuckle.
Euonymus obovatus Nutt. ..... Running Strawberry Bush.
Fagus Americana Sweet ..... American Beech.
Fraxinus Americana L. ..... White Ash.
" nigra Marsh ..... Black Ash.
Gaultheria procumbens L. ..... Spring Wintergreen.
Gaylussacia resinosa (Ait.) T. & G. ..... High-bush Huckleberry.
Hamamelis Virginiana L. ..... Witch Hazel.
Hicoria glabra (Mill) Britton ..... Pig-nut Hickory.
" minima (Marsh.) Britton ..... Bitter-nut.
" ovata (Mill.) Britton ..... Shag-barg Hickory.
Ilex verticillata (L.) A. Gray ..... Virginia Winter-berry.
Juglans cinerea L. ..... Butternut.
" nigra L. ..... Black Walnut.
Larix larcina (DuRoi) Koch ..... Tamarack.
Liriodendron Tulipifera L. ..... Tulip-tree.
Lonicera ciliata Muhl ..... American Fly-honeysuckle.
" dioica L. ..... Smooth-leaved Honeysuckle

Lonicera glaucescens Rydb ..... Douglas Honeysuckle.
" oblongifolia (Goldie) Hook..... Swamp Fly-Honeysuckle.
Nyssa sylvatica Marsh..... Pepperidge.
Opulaster opulifolius (L.) Kuntze..... Nine-bark
Ostrya Virginiana (Mill.) Willd..... Hop Hornbeam.
Parthenocissus quinquefolia (L.) Planch.... Virginia Creeper
Populus candicans (Ait.) A. Gray ..... Balm of Gilead.
" deltoides Marsh..... Cottonwood.
" grandidentata Michx..... Large-toothed Aspen.
" tremuloides, Michx..... American Aspen.
Prunus Americana Marsh. ..... Wild Plum,
" nigra Ait ..... Canada Plum.
" Pennsylvanica L. f. ..... Wild Red Cherry.
" serotina Ehrh..... Wild Black Cherry.
" Virginiana L..... Choke Cherry.
Quercus alba L. ..... White Oak,
" coccinea Wang..... Scarlet Oak.
" macrocarpa Michx..... Bur Oak.
" palustris DuRoi..... Pin Oak.
" platinoides (Lam.) Sudw..... Swamp White Oak.
" rubra L ..... Red Oak.
" velutina Lam. ..... Yellow Black Oak.
" coccinea x Quercus palustris. ..... A fine hybred; many trees.
Rhamnus Alnifolia L'Her..... Alder-leaved Buckthorn.
Rhus copalina L ..... Dwarf Sumac.
" glabra L..... Smooth Sumac.
" Hirta (L.) Sudw ..... Staghorn Sumac.
" radicans L ..... Poison Ivy.
Ribes Cynosbati L..... Wild Gooseberry.
" floridum L'Her..... Wild Black Currant.
" oxycanthoides L ..... Northern Gooseberry.
" prostratum L'Her. ..... Fetid Currant.
Rosa Carolina L..... Swamp Rose.
" humilis Marsh ..... Low Rose.
" rubiginosa L..... Sweet Briar.
Rubus Canadensis L..... Dewberry.
" hispidus L ..... Hispid Swamp Blackberry.
" occidentalis L..... Black Raspberry.
" strigosus Michx.. ..... Wild Red Raspberry.
" villosus Ait..... High Bush Blackberry.
Salix amygdaloides Anders..... Peach-leaved Willow.
" Bebbiana Sargent..... Bebbs Willow.
" candida Fluegge ..... Hoary Willow.

Salix cordata Muhl..... ..... Heart-leaved Willow.
" discolor Muhl.....Glaucus Willow.
" humilis Marsh..... Low Willow.
" fluviatilis Nutt.....Sandbar Willow.
" lucida Muhl .....Shining Willow.
" lucida, heart-leaved variety.....
" nigra Marsh.....Black Willow.
" petiolaris J. E. Smith .....Slender Willow.
" sericea Marsh.....Silky Willow.
" ___ ___? undescribed in books; large leaves with long teeth
" _____? " " "
" _____? " " "

Sambucus Canadensis L .....American Elder.
" pubens Michx ....Red-berried Elder.
Sasafras Sasafras (L.) Karst ....Sasafras.
Smilax hispida Muhl ....Hispid Green-briar.
Solanus Dulcamara L..... ..... Night Shade,
Spiraea Salicifolia L. .....American Meadow-sweet.
Tilia Americana L..... ....Bass-wood.
Ulmus Americana L.....American Elm.
" fulva Michx.. ....Slippery Elm.
Vaccinum Pennsylvanicum L..... .....Dwarf Blueberry.
Viburnum acerifolium L..... ..... Maple-leaved Arrow-wood.
" cassinoides L.....Withe-rod.
" Lentago L.....Nanny-berry.
" _____? long fruited; resembles V. nudum.
" opulus L..... .....Cranberry-tree.
Vitis bicolor Leconte ....Northern Fox-Grape.
" vulpina L ....Riverside Grape.

List of Water Plants, Herbs and Shrubs Planted in and about Lake Higinio, for the Purpose of Converting it into Water Garden:

Brasenia peltata Pursh..... ....Water-shield or target.
Castalia odorata (Dryand) Woodv. & Wood.Sweet-scented Water Lily.
Decodon verticillatus (L.) Ell.. ..... Swamp Loosestrife.
Ilex verticillata (L.) A. Gray..... .....Virginia Winterberry.
Ilicioides mucronata (L.) Britton .....Mountain Holly.
Nymphaea advena Solander..... .....Large Yellow Pond Lily.
Picea Mariana (Mill.) B. S. P..... ..... Black Spruce.
Pontederia cordata L.. .... Pickerel-weed.
Sagitaria angustifolia Engelm.....
Sparganium eurycarpum Engelm.....Broad-fruited Bur-seed.
Vaccinium corymbosum L ....Tall Blueberry.

BELLE ISLE PARK.

CANNON FROM BATTLE OF VICKSBURG. BELLE ISLE PARK.

For the purpose of learning, as far as possible, the causes of the destruction of the trees on Belle Isle park and the amount of damage done, I have made a personal visit to every self planted tree west of Inselruhe avenue and have recorded their size and condition in a field book, properly arranged in tabulated form, for that purpose, with statements concerning all defective trees, with recommendations for their treatment whenever I thought remedial work would be of any avail.

The field book contains a map of that portion of the island under consideration, which divides it into plats and sections, to some one of which each tree is referred by number; thereby giving it an approximate location so that it may be easily found. This portion of the park formerly contained many species of trees and shrubs; by thinning out for park purposes they have been reduced to about eighteen species; in some cases but a single individual of species remains.

The total number of self planted trees on this portion of the island is 2,497. Of this number 1,918 are in good condition and 579 or twenty-four per cent. of all are more or less defective; many to a serious extent.

The following tabulated statement gives in concise form the systematic and vital statistics of all the trees under consideration :

PATALOGICAL AND STATISTICAL TABLE OF

TREES ON BELLE ISLE PARK WEST OF INSELRUHE AVENUE

NAME OF TREES.		Total	Perfect.	Defective	Per Cent. Perfect.	Per Cent. Defective
SCIENTIFIC.	COMMON.					
Ulmus Americana	White Elm	709	647	62	91	9
Quercus alba	White Oak	269	171	98	63	37
" platinoides	Swamp White Oak	249	193	56	77	23
" palustris	Pin Oak	158	73	85	45	55
" rubrum	Red Oak	104	41	63	39	61
" macrocarpa	Burr Oak	80	77	3	96	4
" velutina	Yellow Oak	11	7	4	63	37
" coccinea	Scarlet Oak	1	1	0	100	0
Acer dasycarpum	Silver Maple	224	162	62	71	29
" saccharum	Sugar Maple	1	1	0	100	0
Geleditsia tricanthos	Honey Locust	1	1	0	100	0
Populus deltoides	Cottonwood	1	0	1	0	100
Fraxinus Americana	White Ash	12	12	0	100	0
Hicoria minima	Bitternut	23	23	0	100	0
" ovata	Shellbark Hickory	654	509	145	77	23
TOTALS AND PER CENT		2,497	1,918	579	76	24

The greatest amount of mortality and defectiveness among the trees of the island are in the most westernly part of the forest. This condition is traceable to five distinct but co-operating causes, viz :

1st.—The excessive draining of the land by the canal, which changes it from a swampy to a dry condition; this gives the swamp trees a new environment to which they cannot easily adapt themselves.

2d.—The clearing out of the small trees and shrubs which lets in hot winds of the summer and the cold winds of winter; another condition of environment to which they are not accustomed.

3d.—The raking off of the leaves from under the trees, which impoverishes the soil and exposes it to alternate excessive freezing, thawing and evaporation of moisture.

4th.—The attack of saprophytic fungi as a result of the languishing condition brought on by the above enumerated causes.

5th.—The attack on the hickories of a beetle, the Scolytus quadrispinosus, whose ravages I discovered and published early in the season. This beetle attacks the tree at the juncture of the leaf and the twig, eating out the interior of the latter. This causes a defoliation of the tree and consequent death. The bark of the dead trees is used by the female beetle as a place for her brooding burrow which she makes by eating through the bark to the wood. In the latter, just under the cambium layer, she burrows upward from about one and one-half to two inches. On each side of this channel, she deposits a line of eggs. She then goes down to the entrance which she fills with her body, the head inward. and there dies. Her dead body forms a protection to the eggs or young brood within. When the brood hatches out, each individual begins to eat out a lateral burrow perpendicular to that made by the mother beetle. They continue this process until they arrive at maturity, when they go forth to commit farther destruction on the yet remaining trees.

Whether there is more than one brood during the season, I have not yet learned; farther observation is needed. Their first depredation of the season is about the last week in July. I would recommend that all hickories attacked to be cut down as soon as decay begins. By the old scars on the small branches, I am enabled to determine the fact that they made their first appearance on the island in the summer of 1900.

There seems to be no remedy for these pests and two species of our hickories (H. ovata and H. glabra) are likely doomed to utter destruction. The bitter hickory and the Big Shag-bark have, up-to-date, proved to be immune.

The newly set native trees on Belle Isle park are in a very flourishing condition. Young trees readily adapt themselves to the new conditions caused by drainage and clearing. The depleted portion of the island forest can easily be renovated by resetting with young trees taken from the wilderness portion and from the nursery on Palmer park. A glance at the statistical table above will show what trees are best fitted for the new conditions.

Respectfully submitted,

S. ALEXANDER,

Park Botanist.

INLET TO LOOP CANAL, BELLE ISLE PARK.

SECRETARY'S REPORT

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—I herewith submit the annual financial statement for the fiscal year commencing July 1, 1902, and ending June 30, 1903, both days inclusive, showing the cash balance in the city treasury at the close of business June 30, 1903, as follows:

Park and boulevard fund,	- -	$11,764 01
Park improvement fund,	- -	37,626 99

The above balances are certified to by the city controller, as per his statement hereto attached.

Included in this report is a list, in tabulated form, of the principal improvements and their cost, a statement of all bonds issued, the estimates asked for and the amounts allowed since 1889, together with a complete list of the expenditures on the park and boulevard system from all sources since the first park was established in 1854.

Respectfully submitted,

M. P. HURLBUT,
Secretary.

June 30, 1903.

OFFICE OF THE CONTROLLER,
DETROIT, July 16, 1903.

HON. M. P. HURLBUT, Secretary,

Park and Boulevard Commissioner, Detroit.

DEAR SIR :—I hereby certify that the cash balance to the credit of the park and boulevard fund at the close of business June 30, 1903, was..... $11,764 01
and that the cash balance to the credit of the park improvement fund was $37,626 99

Respectfully,

HOWARD C. BECK,
Deputy Controller.

Financial Statement.

JULY 1, 1902, to JUNE 30, 1903.

RECEIPTS.

Park and Boulevard Fund.

Appropriation, 1902		$180,913 00
Casino and skating pav. privileges, Belle Isle	$ 5,700 00	
Boat privilege, Belle Isle	400 00	
Bicycle privilege, Belle Isle	126 50	
Pony privilege, Belle Isle	650 00	
Casino privilege, Palmer Park	188 79	
Phaeton receipts	12,053 87	
Bath house receipts	2,297 05	
Ferry licenses	650 00	
Sale of buildings	4,255 00	
Boat landing permits	110 00	
Dock rent	450 81	
Mooring boats	50 00	
Soldiers' monument fund	100 00	
Sale of hickory trees	100 00	

Detroit Yacht Club lease	1 00	
Detroit Boat Club lease	1 00	
Sale of ice to Detroit Yacht Club	47 95	
" " to Detroit Boat Club	29 05	
" " at Palmer Park	17 18	
Ground rent West Grand Boulevard	20 00	
Permits inspection	51 25	
Sale of tubs, etc	47 00	
" hay and tank	58 60	
Feed and care of horse	195 00	
Damages	5 60	
Sale of tufa	8 00	
Walks, assessment collected	64 80	
Sale of pheasants	4 00	
" crusher dies	131 25	
" horse	25 00	
" oil	4 00	
" old iron	9 60	
Unclaimed checks	9 25	
Sale of lattice	50	
" electroplates	3 50	
" iron	115 17	
" crushed stone	4 00	
" elk skin	2 00	
" bowl closet	6 00	
Rebate on freight	3 00	$27,995 72
		$208,908 72
Cash balance June 30, 1902		5,845 46
		$214,754 18

Park and Boulevard Fund.

EXPENDITURES.

GENERAL MAINTENANCE.

Administration.

Salaries	$11,749 92	
Printing and stationery	1,004 21	
Office rent and expenses	965 01	$13,719 14

Engineering Department.

Salaries	1,787 76	
Supplies	209 98	1,997 74

Greenhouse Department.

Propagation	5,284 43	
Floral planting	1,018 32	
Stock and supplies	378 82	
Fuel	541 22	7,222 79

Telephones.

Telephones		361 66

Tools.

Purchase	914 18	
Repairs	585 82	1,500 00

Rollers.

Engineer	910 54	
Fuel and supplies	496 38	
Repairs	193 08	1,600 00

Crusher.

Labor	125 64	
Repairs	410 00	
Supplies	414 36	950 00

Barn Department.

Barns and horses, care of	6,800 15	
Vehicle repairs	1,180 60	
Shoeing	1,062 05	
Harness repairs	354 03	
Supplies	357 04	
Forage	4,799 33	
City barn	2,033 06	16,586 26

Band Concerts.

Music		5,431 50

Nursery.

Labor and supplies	2,243 25	

Fertilizer.

Purchase and gathering	500 00	
Total general maintenance,		$52,112 24

General Improvements.

Cobble	$2,000 00	
Horses	1,800 00	
Harness	500 00	
Wagons	240 00	
Dump carts	150 00	
Stone crusher	1,625 00	
Engine	1,200 00	
New Greenhouse	293 57	
Total general improvements,		7,808 57

BELLE ISLE MAINTENANCE.

Power Plant.

Engineers and firemen	$1,989 34	
Supplies	169 71	
Fuel	1,340 95	3,500 00

Park Rest.

Janitor	368 73	
Supplies and repairs	350 61	
Fuel	80 66	800 00
General maintenance	20,672 78	
Trees	627 37	
Flower beds	2,114 03	
Flag and staff	2 60	
Fuel	315 90	23,732 68

Buildings.

Casino	280 09	
Bath house	214 06	
Skating pavilion	461 46	
Bicycle shelter	261 20	
Barn	65 55	
Greenhouse	353 86	
Inselruhe	1,222 03	
Ice house	39 25	
Buildings, general	831 93	
Furniture	1 77	3,731 20

Roads.

Road maintenance	1,828 65	
Hitch Bays	108 02	1,936 67

Docks and Bridges.

Dock repairs	214 20	
Bridges	368 24	582 44

Water System.

Repairs	141 54	
Filling tanks	740 36	
Repairing tanks	6 50	
Cutting ice	538 51	1,426 91

Lakes.

Cleaning		401 45

Zoological Department.

Care of animals	955 56	
Feed	2,299 28	
Cages, repairs	5 17	3,260 01

Closets and Cesspools.

Care of	924 60	
Repairs	134 12	
Supplies	55 18	1,113 90

Phaeton Service.

Maintenance		$5,762 25	

Bath House.

Maintenance	$2,003 09		
Suits, etc.	884 97	2,888 06	

Patrol.

Wages		811 10	

Ferry Dock.

Repairs		2,481 47	

Range.

Purchase		190 00	
Hickory trees		222 07	
Total Belle Isle maintenance,			$52,840 21

BELLE ISLE IMPROVEMENTS.

Road construction		$2,500 00
Wagon shed		4,811 39
Music stand		2,500 00
Storage cellar		991 20
Bridge No. 10		115 00
" No. 11		1,135 47
" No. 12		216 95
" No. 18		4.885 44
Hydrants		150 00
Gates		200 00
Sprinkling system		500 00
Drinking Fountain		500 00
Inselruhe heating		1,000 00
Athletic field		1,000 00
Animals and cages,	Animals, $190 75; Cages, 309 25	500 00
Deer park fence		217 86
Slag		300 00
Settees and swings		200 00

Pic-nic stands	$ 250 00	
Sheet piling	250 00	
Loop canal	2,500 00	
Rip-rapping lakes, etc	250 00	
Lily pond	250 00	
South shore banks	100 00	
Safe	100 00	
Planer	225 00	
Drill	100 00	
Park Rest	3,500 00	
Brown stone fountain	350 00	
Zoo Lake	2,000 00	
Total Belle Isle improvements,		$31,598 31

BOULEVARD MAINTENANCE.

Grand Boulevard.

General maintenance	2,380 94		
Lawns	1,382 42		
Trees	828 01		
Floral	603 18		
Water system	92 47		
Roads	275 23		
Road sprinkling	2 399 34		
Drainage	38 41	8,000 00	
Caretakers	3,621 97		
Patrol	1,460 00		
Lafayette bridge	2,500 00	7,581 97	
Total Boulevard maintenance,			15,581 97

BOULEVARD IMPROVEMENTS.

Gates	200 00	
Sprinkling system	750 00	
Resurfacing	5,000 00	
Trees, at large	250 00	
Receiving basins	200 00	
Paving	7,000 00	
Total Boulevard improvements,		13,400 00

PALMER PARK MAINTENANCE.

Palmer Prak.

General maintenance	$2,973 24		
Road maintenance	103 27		
Lawn maintenance	543 28		
Ice cutting	119 40		
Trees	53 25		
Floral	231 59		
Water system	28 80		
Casino	21 53		
Forage	104 88		
Buildings	476 88		
Fuel	299 16	$4,955 28	
Water rates		500 00	
Total Palmer Park maintenance,			$5,455 28

PALMER PARK IMPROVEMENTS.

Arboretum	299 43		
General improvements	1,608 77		
Buildings	29 79	1,937 99	
Woman's toilet	601 71		
Sewer	782 24		
Settees	100 00	1,483 95	
Total Palmer Park improvements,			3,421 94

CLARK PARK MAINTENANCE.

Clark Park.

General maintenance	1,946 19		
Ice	6 00	1,952 19	
Gen'l maintenance Clark addition,		459 92	
Total Clark Park maintenance,			2,412 11

CLARK PARK IMPROVEMENTS.

General	928 55		
Lakes	2,204 80	3,133 35	
General improvements, addition		1,000 00	
Total Clark Park improvements,			4,133 35

CITY PARKS MAINTENANCE.

Perrien		$110 03		
Grand Circus		497 88		
Cass		286 49		
Stanton		8 57		
Macomb		74		
Harmonie		4 00		
Campau		272 64		
Cadillac		58 68		
West		11 92		
Clinton		16 66		
Capitol		36 61		
Washington		263 54		
Recreation		3 22		
Medbury		45 92		
City Hall lawn		94 83		
Crawford		6 16		
Boston		22 75		
Opera House Lawn		21 51		
Soldiers' Monument		91 37	$1,853 52	
Maintenance, general	2,357 70			
Trees	46 90			
Water system	24 05			
Floral	799 28		3,227 93	
Caretakers, parks			4,719 35	
Total city parks maintenance,				$9,800 80

CITY PARKS IMPROVEMENTS.

Owen.		
General	894 27	
Trees	90 00	984 27
Perrien.		
General		16 59
Grand Circus.		
General	206 38	
Walks	31 08	237 46
Fountain		350 00
Cass.		
General		157 70

Stanton.		
General	$ 50 00	
Macomb.		
General	500 00	
Harmonie.		
General	50 00	
Campau.		
General	208 57	
Walks	1,020 00	
Cadillac.		
General	100 00	
West.		
General	50 00	
Clinton.		
General	50 00	
Capitol.		
General	50 80	
Washington.		
General	300 00	
Recreation.		
General	50 00	
Medbury.		
General	50 00	
Second Avenue.		
General	50 00	
Boston.		
General	50 00	
Opera House Lawn.		
General	100 00	
Total city parks improvements,		$4,425 39

RECAPITULATION.

Park and Boulevard Fund.

	MAINTENANCE.	IMPROVEMENTS.
General maintenance and improvements.....	$52,112 24	$ 7,808 57
Belle Isle " " "	52,840 21	31,598 31
Boulevard " " "	15,581 97	13,400 00
Palmer Park " " "	5,455 28	3,421 94
Clark " " " "	2,412 11	4,133 35
City " " " "	9,800 80	4,425 39
	$138,202 61	$ 64,787 56
Maintenance		138,202 61
Expenditures		$202,990 17
Cash balance June 30, 1903.....		11,764 01

RECEIPTS—

Cash balance June 30, 1902.....	$ 5,845 46	
Appropriation	180,913 00	
General receipts.....	27,995 72	
	$214,754 18	$214,754 18

Note—

Expenditures.....	$202,990 17
Bills paid from city contingent fund by controller for repairs of Belle Isle Casino	987 80
Total expenditures.....	$203,977 97

Park Improvement Fund—Aquarium and Horticultural Building:

Steel and iron	$ 7,666 20
Water.....	117 70
Superintendence	1,530 00
Roofing.....	5,237 00
Mason work	1,902 92
Carpenter work	19,200 00
Tanks.....	3,647 71
Grading	74 86
Heating system..	4,046 25
Elevator	200 00
Cut stone	1,025 00

Dies for tanks	$870 00	
Fireproofing	2,355 83	
Piping for tanks	64 50	
Painting and glazing	7,730 00	
Plastering	1,050 00	
Architect's services	1,121 65	
Plumbing	600 00	
Marble and Tile	3,800 00	
Electric	202 72	
Total expenditure on aquarium and horticultural building		$62,442 34

RECAPITULATION.

Park and Boulevard Fund.

Cash balance June 30, 1902	100,069 33	
Expenditures		62,442 34
Cash balance June 30, 1903		37,626 99
	$100,069 33	100,069 33

Park and Boulevard System.

Park and boulevard fund balance June 30, 1902	5,845 46	
Park and boulevard fund receipts	208,908 72	
Park improvement fund balance June 30, 1902	100,069 33	
City contingent fund, repairs to Belle Isle Casino	987 80	
Total receipts	315,811 31	
Maintenance, park and boulevard fund		138,202 61
Maintenance, repairs to Belle Isle Casino, city contingent fund		987 80
Improvements, park and boulevard fund		64,787 56
Improvements, aquarium and horticultural building, park improvement fund		62,442 34
Total expenditure		$266,420 31
Park and boulevard fund—Bal. June 30, 1903		11,764 01
Park improvement fund—Bal. June 30, 1903		37,626 99
	$315,811 31	315,811 31

PARK AND BOULEVARD SYSTEM.—(Expenditures.)

COMPILED FROM CITY RECORDS.

General Maintenance includes administration, tools, nursery, greenhouse, barns, horses and vehicles and general improvements.

Year	MAINTENANCE.						IMPROVEMENTS.						TOTALS.		GRAND TOTAL.
	General Inc. Gen'l Imp.	Belle Isle.	Palmer Park.	Clark Park.	Small Parks.	Boulevard.	Belle Isle.	Palmer Park.	Clark Park.	Small Parks.	Boulevard.	Boulevard Right of Way.	Maintenance.	Improvements.	
1854	On account of change in fiscal year the item in 1878 is for 17 months and in 1896 it is for 18 months: $5,416.67, commissioner's salary in 1900-01 from contingent fund.			Included in maint. of small parks from 1890 to 1899.	$1,869 75		First item is for purchase of the park. $49,165 88 in 1901 for addition to bridge approach.		First item is for purchase of the park and was paid from the general city fund: $40,981.40 in 1901 for addition.	Improvements from 1854 to 1899 are included under head of maintenance; $41,400.00 in 1901 for Atkinson park.		$4,792.14 of the $4,600.00 in 1899 was paid from city contingent fund.	$1,869 75		$1,869 75
1855					167 98								167 98		167 98
1856					1,163 36								1,163 36		1,163 36
1857					934 29								934 29		934 29
1858					268 45								268 45		268 45
1859					181 46								181 46		181 46
1860					185 74								185 74		185 74
1861					1,915 14								1,915 14		1,915 14
1862					2,862 65								2,862 65		2,862 65
1863					1,961 15								1,961 15		1,961 15
1864					2,391 69								2,391 69		2,391 69
1865					1,324 58								1,324 58		1,324 58
1866					2,686 53								2,686 53		2,686 53
1867					1,945 00								1,945 00		1,945 00
1868					1,433 12								1,433 12		1,433 12
1869					1,344 98								1,344 98		1,344 98
1870					2,351 93								2,351 93		2,351 93
1871					4,333 36								4,333 36		4,333 36
1872					3,345 99								3,345 99		3,345 99
1873					2,111 38								2,111 38		2,111 38
1874					3,509 83								3,509 83		3,509 83
1875					3,368 21								3,368 21		3,368 21
1876					6,024 08								6,024 08		6,024 08
1877					2,666 24								2,666 24		2,666 24
1878					2,180 04								2,180 04		2,180 04
1879		$1,415 50					$200,000 00						1,415 50	$200,000 00	201,415 50
1880					1,750 04		202 15				$13 08		1,750 04	215 23	1,965 27
1881		900 43			1,612 76						15 82		2,513 19	15 82	2,529 01
1882	$2,410 98	1,948 62			2,189 11		10,144 99				1,964 18		6,548 71	12,109 17	18,657 88
1883	3,060 55	18,043 30			1,606 58		16,927 71				337 72		22,710 43	17,265 43	39,975 86
1884	2,905 83	13,519 69			2,612 43		10,264 45				6,851 55		19,037 95	17,116 00	36,153 95
1885	2,094 70	3,875 54			2,163 50		5,873 41				20,560 08		8,133 74	26,433 49	34,567 23
1886	3,374 76	13,917 61			2,224 96		11,386 02				16,787 67		19,517 33	28,173 69	47,691 02
1887	3,431 11	45,981 99			2,227 75		59,923 47				24,710 36		51,640 85	84,633 83	136,274 68
1888	7,105 67	21,000 34			2,837 92		48,066 62				11,848 93		30,943 93	59,915 55	90,859 48
1889	8,501 98	21,487 55			2,155 92	$5,149 78	59,562 30				1,423 71		37,295 18	60,986 01	98,281 19
1890	10,860 90	25,646 86			5,212 50	7,501 60	117,629 88		$46,000 00	$2,782 79	2,779 36		49 221 86	169,192 03	218,413 89
1891	10,256 04	42,993 96			10,216 77	16,389 66	85,323 70		6,123 04	7,803 99	30,233 23	$99,477 84	79,856 43	228,951 20	308,808 23
1892	14,899 96	42,798 60			13,901 23	11,411 85	34,393 96		4,265 15	553 75	265,549 48	108 982 40	84,011 64	413,744 74	497,756 38
1893	31,374 27	43,593 02			7,385 39	4,570 67	96,602 05		2,478 06	3,419 61	195,640 52	842 45	86,923 35	298,982 69	385,906 04
1894	30,839 92	31,079 12	$393 19		7,828 59	12,464 92	106,715 95	$1,882 84	2,954 55	3,251 04	103,589 79		82,605 74	218,394 17	300,999 91
1895	29,384 79	32,769 67	1,066 78		6,104 17	10,973 25	41,598 28	7,503 41	2,406 80	2,170 78	31,018 72	4,739 06	80,297 66	89,437 05	169,734 71
1896	36,502 16	48,222 16	3,163 13		11,822 10	12,998 76	36,755 01	10,246 98	2,375 24	4,806 22	58,833 53	33 00	112,708 31	108,049 98	220,758 29
1897	28,587 98	42,477 04	2,612 04		10,464 03	10,050 59	1,576 91	18,415 17	2,543 93	6,337 26	20,071 46	800 00	94 191 68	49,734 73	143,926 41
1898	27,142 95	37,500 33	4,008 55		10,057 85	13,195 74	15,678 39	11,133 56	2,729 05	5,139 41	10,841 33	550 00	91,899 72	46,070 67	137,970 39
1899	44,934 17	36,737 22	4,325 83	$446 48	7,653 63	10,009 01	23,966 98	7,063 17	4,732 83	4,278 20	15,344 32	4,600 00	104,106 34	60,005 10	164,111 84
1900	51,668 59	35,750 87	5,001 36	1,986 38	8,162 96	11,190 95	48,931 98	10,172 40	4,181 47	7,489 03	5,211 75		116,126 63	75,986 63	192,063 26
1901	65,401 04	39,875 20	4,665 31	1,094 22	9,883 20	13,191 60	123,080 81	4,247 92	43,148 05	48 772 99	8,170 00	105,208 67	134,510 77	333,628 44	468,139 21
1902	59,920 81	52,840 21	5,455 98	2,412 11	9,800 60	15,581 97	94,040 65	8,421 94	4,123 35	4,425 39	13,400 00		146,011 18	119,421 33	265,432 51
	$477,548 46	$464,474 [illegible]	$[illegible] 07	$6,779 10	$199,481 14	$184,509 50	$1,448,845 60	$74,150 59	148,071 53	101,170 46	$840,186 59	$335,273 42	$1,516,545 09	$2,712,418 98	$4,254,989 07

Park and Boulevard System.

Bonds Issued and Estimates Asked and Allowed.

Total bonds issued for Belle Isle park	$915,000 00
" " " " City parks	81,000 00
" " " " Grand Boulevard	830,000 00
Total	$1,826,000 00

Estimates Under Acts of May 8, 1899 and May 4, 1901.

1889	$231,000 00	$101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428'661 00	173,502 00
1901	454,893 00	161,265 00
1902	272,169 00	198,913 00
1903	368,170 00	227,363 00
	$3,699,713 00	$2,050,219

Miscellaneous Information to Answer the Many Inquiries Made.

City population, 325,000.
City acreage, 18,560.
Park and boulevard acreage, 1,190.044
Parks and boulevard valuation, $10,378,900 00
Belle Isle park is 2 miles long.
" " " has 5½ miles shore drive.
" " " has 14½ miles of driveway.
" " " has $5\frac{1}{10}$ miles gravel walks.
" " " flag staff is $146\frac{86}{100}$ feet in height.
Park and boulevard system has 15½ miles of gravel walk.
" " " " has $38\frac{1}{10}$ miles of roadway.

AREA OF LAKES.

Lake Takoma,	Belle Isle park,	15.30	acres.
" Muskoday,	" " "	34.23	"
" Okonoka,	" " "	22.56	"
" Higinio, " Frances,	Palmer park,	4.58	"
Clark park lake.		.66	"

PRINCIPAL IMPROVEMENTS.

Lakes.

Lake Takoma, Belle Isle park, 1887...	$21,981 75	
" " " " " deepened, 1892	5,444 55	
" " " " " " 1900	7,019 43	
" " " " " " 1901	4,000 00	$38,445 73
Lake Okonoka, Belle Isle park, 1888 9.....		58,658 73
" Muskaday " " " 1893		45,055 99
Lily pond, " " " 1890		2,990 15

Canals.

Loop canal, Belle Isle park, 1883	$11'182 00	
" " " " " deepened, 1901	2,500 00	
" " " " " " 1902	2,500 00	$18,682 00
Nashua " " " " 1890.		37,741 97

Water Main.

Water mains, Belle Isle park, 1894-5-6	$29,623 52

Docks.

Sheltered ferry dock, Belle Isle park, 1894	12,520 65

Bridges.

Stone Bridge No. 1—Over North Inlet to Loop Canal, on Pleasure Place, Belle Isle. 1894	5,438 25
Steel Bridge No. 2—Over Loop Canal, near Muir Fountain, Belle Isle, 1892	5,962 53
Stone Bridge No, 3—Over Marsh Run, on Muse Road, Belle Isle, 1894	8,205 80
Wooden Bridge No. 4—Over Lilly Pond, built in 1901	206 00
Stone Bridge No. 5—(Foot); over Marsh Run, Belle Isle, 1894	1,400 00
Steel Bridge No. 6—Over Loop Canal, on Central avenue, Belle Isle, 1892	14,301 43
Stone Bridge No. 7—Over Loop Canal, South of Bridge No. 6, Belle Isle, 1892-3	5,852 72
Stone Bridge No. 8—Over outlet at S. W. corner of Belle Isle, 1894	5,462 34
Stone Bridge No. 9—(Foot); over outlet to Lake Takoma, Belle Isle, 1894-9	1,732 61
Stone Bridge No. 10—Over Canal at head of Takoma lake, built in 1900-1-2	6,962 52
Brick and stone bridge No. 11—Over inlet to lake Takoma, built in 1901-2	3,600 00
Stone bridge No. 12 - Over south inlet to Nashua canal, built in 1900-1901-1902	3,577 79
Wooden Bridge No. 13—Over Nashua canal east of Belle Isle barns, built many years ago, now worthless	——
Steel bridge No. 14—Over Nashua canal, at shelter pavilion, Belle Ilse, 1899-1900	4,538 35

Wooden Bridge No. 15—Over Nashua canal on Hermits Pass, built many years ago, now worthless	——
Wooden Bridge No. 16—Over inlet to Nashua canal on Woodside drive, now worthless	——
Wooden Bridge No. 17—Over S. E. inlet to Lake Okonoka on Lakeside drive, abandoned in 1900 and inlet filled up	——
Stone and Steel Bridge No. 18—Over east inlet to Lake Okonoka on Lakeside drive, built in 1902	4,885 44
Stone Bridge No. 19—Over south inlet to lake Muskoday, Belle Isle, 1894	4,578 47
Stone Bridge No. 20—Over north inlet to lake Muskoday, Belle Isle, 1894	3,999 62
Stone Bridge No. 21—Over outlet to lake Muskoday, 1894	3,559 77
Wooden Bridge No. 22—Was built many years and is now worthless	——
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9.	44,786 61

Buildings.

Aquarium and horticultural building, 1900-1-2	111,940 16
Casino, Belle Isle, 1886-7-8	19,066 45
Boathouse. Belle Isle, 1887	5,587 28
Engine house, pavilion and earth closets, Belle Isle, 1887, engine house abandoned 1896	5,966 84
Greenhouse, Belle Isle, 1899 1900-1901	16,703 25
Ice House, 1900-1,	2,433 22
Music pavilion, Belle Isle 1902	2,500 00
Bathhouse, Belle Isle, 1894	16,179 88
Horse shelter (old market bldg.), Belle Isle, 1894	3,110 06
Skating pavilion. Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895.	12,053 21
Women's toilet, (brick) Belle Isle, 1895	1,085 49
" " (stone) " " 1896	2,208 56
Picnic pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Athletic pavilion, Belle Isle, 1899	12,828 72
Police station (park board's share) Belle Isle 1892.	2,000 00
Women's toilet, Clark park, 1893	4,205 59
Men's " " " 1899-1900	2,295 00
Shelter pavilion, " " 1895	1,675 00

Picnic pavilion, Palmer park, 1895,	1,167 53
Casino, Palmer park, 1896-99	11,799 73
Women's toilet, Palmer park, 1902	601 71
Log waiting room, Palmer park, 1900	1,212 07

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1	8,821 82
Fountain, Capitol park, 1896	2,351 83
" Stanton park, 1896	670 00
Horse drinking troughs, boulevard, 1896	1,606 38

Park and Boulevard System.

NAMES.	LOCATIONS.	ACREAGE.
Adelaide Campau	Campau, Mullet and Clinton sts	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13.470
Belle Isle	Island in the Detroit river	707.000
Boston parkway	Boston boulevard, east and west	5.734
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Rowland sts	.510
Cass	Second ave., Ledyard and Bagg sts	4.966
Chicago parkway	Chicago boulevard, east and west	5.008
City Hall	Woodward ave., Fort and Michigan	,550
Clark	Dix, Scotten, Lafayette and Clark sts	31.601
Clinton	St. Antoine, Mullet and Raynor sts	1.068
Crawford	Fifth and W. High sts	.746
Elton	Fifth and Orchard sts	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts	.448
Macomb	17th, 18th and Rose sts	.557
Medbury	Medbury ave., Rohn R. to Rivard sts	3.440
Opera House	Woodward and Monroe aves	.174
Owen	Jefferson ave. and river	6 990
Palmer	Woodward avenue	140.410
Parker Parkway	Parker ave. north of Jefferson ave	.373
Perrien	Chene. Grandy, Hancock and Warren aves	5.180
Recreation	Brush, Brady to Alexandrine aves	1.290
Second avenue parkway	Second ave. bet. Colburn pl. & R. R.	1.110
Stanton	17th, 18th and Porter sts	.695
Voigt	Edison and Longfellow aves	6.795
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
Lafayette boulevard		19.080
	Total 28 parks and the boulevard	1,190.044
Grand Boulevard mileage		11.62
Lafayette " "		2.10
	Total	13.72

RAYNOR & TAYLOR,
DETROIT.

Commissioner of Parks and Boulevards

DETROIT

TWELFTH ANNUAL REPORT.

1901

RAYNOR & TAYLOR,
DETROIT.

Fifteenth Annual Report

of the

Commissioner of Parks and Boulevards

. . of the . .

City of Detroit

Mich.

One Thousand
Nine Hundred
and Four

R. E. Bolger

COMMISSIONER.

OF PARKS
LEVARDS.

W. D. HEALY,

F. O RAY, F

NASHUA CANAL EAST FROM BRIDGE NO. 14—BELLE ISLE PARK.

CITY PLAY GROUNDS

DETROIT, the City of the Straits, with her thrift, progress, and beauty is now well defined and embraces one of the finest systems of natural pleasure grounds to be found in any country.

Picturesque and pleasing effects have been produced by combining art with Dame Nature for all those who would but enjoy them.

Step by step the park system of our city has advanced, from one small breathing spot (Grand Circus Park) of half a century ago to its present size of nearly 1,200 acres, including the Grand Boulevard, twelve miles in length, sweeping in a majestic circle about our great city, as the rainbow with its promise of better things to come.

The sylvan beauty of the parks has been well preserved. The majestic elm, graceful willow and beautiful beech, as well as many other grand and noble trees of the woodland have been spared the axman's cruel stroke, that the beautiful attractiveness of the primative forest might be forever enjoyed by all the people without distinction as to station and condition.

PARK COMMISSIONERS

1871-1904.

Park Commissioners Under the Act of 1871:

G. V. N. LOTHROP, ROBERT P. TOMS, A. SMITH BAGG,
JOHN J. BAGLEY, MERRILL I. MILLS, WM. A. BUTLER,
CHAS. I. WALKER, CHAS. C. TROWBRIDGE.

Park Commissioners Appointed in 1879 by Mayor Langdon:

THEO. CHAPOTON, W. K. MUIR, JOHN PRIDGEON, JR.
AUGUST GOEBEL, E. F. CONELY, W. B. MORAN.

Board of Belle Isle Park Commissioners Organized September 6, 1881:

NAMES.	Appointed.	Expiration of Term.	REMARKS.
MERRILL I. MILLS	Aug. 30, 1881	Aug. 31, 1882	
AUG. MARXHAUSEN	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
WM. A. MOORE	Aug. 30, 1881	Aug. 31, 1884	Re-appointed.
JAS. MCMILLAN	Aug. 30, 1881	Aug, 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
WM. B. MORAN	Sept. 1, 1882	Aug. 31, 1886	
AUG. MARXHAUSEN	Sept. 1, 1883	Aug. 31, 1887	
DEXTER M. FERRY	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term Jas. McMillan.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
WM. A. MOORE	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
JOS. A. MARSH	Jan. 22, 1886	Aug. 31, 1889	
ELLIOTT T. SLOCUM	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.
FRED L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888. F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug, 1, 1888	Aug, 31, 1890	Filling unexpired term of F. L. Seitz, resigned.
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept. 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, aborgating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS and WM. B. MORAN, who were succeeded by the following

Commissioners of Parks and Boulevards:

NAMES.	Appointed.	Expiration of Term.	REMARKS.
GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891.
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTON, JR	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21, 1889	May 31, 1893	
FRED A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May, 3, 1892	May 31, 1894	Resigned Nov. 15, 1892. James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED GUENTHER	Aug. 1892	May 31, 1895	
WM. LIVINGSTON, JR	May 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug, Marxhausen appointed to fill unexpired.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
AUG. MARXHAUSEN	Nov. 28, 1893	May, 31 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingston. Jr.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5. 1894	May 31, 1898	Resigned March 1, 1896. A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1896	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
JAS. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VANLEYEN	June 6, 1898	May 31, 1902	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28, 1898	May 31, 1901	Resigned April 11, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904	

Under the Act of May 4, 1901, aborgating the Commissioners of Parks and Boulevards, The Commissioner of Parks and Boulevards was created.

Commissioner of Parks and Boulevards:

NAME.	Appointed.	Term.
R. E. BOLGER,	May 4, 1901	June 1, 1901 to May 31, 1905.

ANCIENT ANCHOR TAKEN FROM LAKE HURON NEAR THE MOUTH OF ST. CLAIR RIVER IN 1903. THE ANCHOR BEARS THE BRITISH CROWN, CRESCENT AND THE DATE 1819.

COMMISSIONER . . . OF . . . PARKS AND BOULEVARDS

To the Honorable, the Common Council:

GENTLEMEN:—The Commissioner of Parks and Boulevards, as required by the city charter, Chapter 19, Charter and Laws of 1893, amended and approved May 4, 1901, herewith submits the fifteenth annual report of this commission for the fiscal year ending June 30, 1904, containing the secretary's detailed financial statement of all receipts and disbursements, vouchers for which are on file with the city controller, together with a comprehensive statement by both the general superintendent and civil engineer of the work of improvement and maintenance.

To many, the number of this report is misleading. Since April 21, 1806, there has been more or less of a park system in Detroit, for on that date an act of congress authorized the governor and judges to replat the city after its destruction by fire, and their plan gave to us not only Grand Circus, Capitol and West parks but all of the breathing places in the

down town district. However, no appropriation for park work was made until the year 1853, and then only for Grand Circus park. This expenditure is recorded in the city council proceedings for the year 1854, and which in fact, was the date of the beginning of the Detroit park system.

BRIDGE NO. 13, NEAR ZOO GROUNDS—BELLE ISLE PARK.

During the subsequent years until 1882, appropriations were made and expended by the city council, but without a published annual report other than that embodied in the proceedings of that body.

Commencing with 1883, under the board of park commissioners were published seven annual reports, numbered from one to seven. Commencing with 1888, the commissioners of parks and boulevards published annual reports numbering, with the present report, from one to fifteen.

It is customary to estimate the years of existence of a park system by the number of its lastest annual report; therefore in reality the number of this report is fifty.

Acquisitions: On March 17, 1903, as recorded on page 187 Journal of the Common Council, that body by resolution, added to the park and boulevard system Lafayette Boulevard from the Western Grand Boulevard to Scotten avenue by condemning the necessary property.

City Storage Yard: The importance of providing a storage yard and barn within the half-mile circle, has been called to the attention of your honorable body a number of times, and each year the necessity becomes more urgent.

Nursery: The nursery has proven to be the most profitable department connected with the system. During the last year, there have been taken from the nursery and transplanted, trees and shrubs which, if purchased, would have cost $2,661.00, in addition to which bedding plants at a value of $605.00 were raised in and planted from the propagating house, making a total value of $3,266.00.

The maintenance of this department, including labor, seeds, etc., cost $2,578.25 or $687.75 less than the value of trees, shrubs, etc., planted. In addition to this saving, there remains in the nursery at prices this commission would have to pay the following :

12,252	trees, valued at	$2,905.12
31,140	shrubs, valued at	9,285.00
195	evergreens, valued at	468.00
1,269	herbaceous plants, valued at	125.00
44,856		$12,783 12

Barns, Horses and Vehicles: July 1, 1903, the commission was in possession of fifty-three horses, nine were purchased at a cost of $1,730.00, three were received in a trade for four; two died (one with colic the other being overcome by heat) and three were sold for $490.00, leaving on hand June 30, 1904, fifty-six horses. There was a daily

average during the year of fifty-eight horses which performed 16,024 days' work, in addition to which it was necessary to hire horses for 739 days' work.

This department cost for maintenance, including care of horses, forage, shoeing, repairs to harnesses, vehicles, etc. $18,124.61 less cost of repairs to vehicles $1,402.67 or $16,721.94.

AUTOMOBILE SERVICE—BELLE ISLE PARK.

The average day's work for the horses has been ten hours, principally due to pheaton service, therefore the 16,024 days would be equal to 20,030 eight hour days and at $1.00 per day per horse, if hired, would cost the commission $20,030.00.

Phaeton Service: The phaeton service was taxed to its utmost and then was insufficient to accommodate the public. There were carried across the bridge 323,163 passengers and 26,098 around the park, or a total of 349,261, the receipts being $12,404.77.

There are in this department thirteen phaetons, three comparatively new and ten old ones; the old ones are in bad condition and at an early day will have to be replaced, which will require considerable of an expenditure.

Bath House: At the bath house, 5,242 women, 36,505 men bathed in the pay department and 9,390 men and boys bathed in the free department, making a total of 51,137 bathers, the receipts amounting to $3,303.55.

The accomodations at the bath house are inadequate to the great demand. There were 12,078 more men and women who enjoyed the privileges of the bath house this year than last, and at no distant date a new bath house proportioned to the present wants should be erected.

Greenhouse Department: The appropriation allowed will add two ranges to the new greenhouse plant, which will be completed and available in the fall of 1904, and it is sincerely hoped that money will be allowed for two new houses each year until the greenhouse plant is completed. The demand for more greenhouse room is absolute as the old houses are practically beyond repair, and much more room is required to raise plants for the horticultural building.

Carpentry Department: As usual, this department has been a busy one, keeping up the necessary repairs to buildings, bridges, vehicles, swings, settees, etc.

Band Concerts: There were given on the park system one hundred and nineteen band concerts, the band consisting of twenty-six musicians including the leader, and extended over a period from July 4 to September 7, Labor Day there being given on each week day two concerts, one at 3 P. M. and one at 8 P. M. and one on Sunday afternoons.

Children's Day: Children's day, June 10 was as formerly a great success.

Because of the unusual popularity of the occasion it would seem that the day is an event which in the future cannot be lost sight of and therefore a certain day should be selected to be known as children's day each succeeding year.

BELLE ISLE IMPROVEMENTS.

New Casino: The city, by legislative act was authorized to raise by bond issue, the sum of $100,000.00 for the construction of a casino on Belle Isle park. The bonds having been sold on January 15, 1904, $100,000.00 was placed in the city treasury to the credit of the park and boulevard

BRIDGE NO. 16 ON WOODSIDE DRIVE OVER NASHUA CANAL, BELLE ISLE PARK.

fund. Plans and specifications were prepared and adopted and proposals were solicited by advertisement for its construction, which will be received and opened July 5 next.

Aquarium: The aquarium is fast nearing completion and is partly stocked with fresh water fish and it is expected that all of the aquaria and pools will be stocked both with fresh and salt water specimens and the aquarium formally opened to the public in August.

While the aquarium has not been formally opened, still the doors have not been closed to the public and the thousands of

people who visit it daily testify to its future popularity. By actual count, more than nine thousand visitors passed through the aquarium one day last week.

This aquarium ranks third in size in the world and has been pronounced by some of the noted aquarists of the country to be the most perfectly equipped.

In the different aquaria will be seen specimen fish from the inland lakes and tributary streams, together with a display of salt water fish, crustaceans, mollusks, polyps, echinoderms, etc. The salt water specimens require sea water (ordinary salt water cannot be used) of which this commission has secured 30,000 gallons from Woods Hole, Mass. This sea water, by aerating and filtering can be used continuously for an indefinite period; loss by evaporation is supplied by adding fresh water.

Horticultural Building: The conservatory was practically finished in the summer of 1903 and such plants as were in possession of the commission were placed on exhibition therein, to which collection have been added many valuable specimens, the donations being as follows:

Col. Lou Burt, Detroit.

1 Echinocactus Wislizenii .....Fish-hook cactus.

Robert Anderson, Detroit.

2 Agave americana. ... .Century plant.

Mrs. Taylor, Detroit.

1 Cereus triangularis.. .....Cactus.

Mr. Franklin H. Walker, Detroit.

3 Latania borbonica..... .....

Mrs. Gus. A. Moebs, Detroit.

1 Agave americana .... Century plant.

Mrs. Fred. Schultz, Detroit.

1 Cereus triangularis .... Cactus.

Phipps Conservatory, Pittsburg, Pa.

1 Ravenala Madagascariensis..... .....Traveler's tree,
Seed of Victoria Regia ..... Queen Victoria water lily.
Collection of Crysanthemum, 30 varieties.

CONSERVATORY SHOW HOUSE—BELLE ISLE PARK

South Park Commission, Chicago, Ill.

4 Latania borbonica.
2 Yusticia ventricosa.
12 Croton, ass't.
3 Sanchesia nobilis.
2 Acalypha bicolor compacta.
6 Aralia Sieboldii
4 Strobelanthus dyerianus.
3 Camphyllobodris Ghiesbreghtii.
7 Goldfusia isophylla.
4 Cufea lanceolata.
3 Dracæna fragrans.
3 Aralia Guilfoilii variegata.

1 Cerasus Laurocerasus.
1 Astrapæa Wallichii.
3 Sanseviera Zeilanica.
2 Yucca aloefolia.
1 Strelitzia reginæ—Bird of Paradise flower.
1 Saintpaulea, african violet.
1 Anthurium cristallinum.
5 Asparagus plumossus.
1 Photinia Japonica, Japan Medlar.
2 Panax Victoria.
1 Plumbago capensis.
3 Stephanotis floribunda.
1 Anthurium Schertzerianum.
1 Anthurium Andreanum.
1 Collection of fuchsia, 7 varieties.

Botanical Garden, Buffalo, N. Y.

1 Alocasia Lindenii.
1 Alocasia Veitchii.
1 Eranthemum variegatum.
1 Calathea, micans.
1 Acalypha miltoniana.
1 Fittonia persali.
1 Antropogon citratum.
1 Manihot utilissima.
1 Ficus altissimus.
1 Thunbergia Jamaica.
1 Panax Victoria.
1 Bignonia rosea violatia.
1 Adiantum Bausei.
1 Nephrolepis Duffii.
5 Areca lutescens.
3 Latania borbonica.
1 Phœnisc dactilifera.
1 Rhapis Humilis.
3 Cocos plumosa.
1 Himetalia horida.
1 Alocasia argyrea.
1 Alocasia Macrohiza, variegata.
1 Calathea Zebrina.
1 Tradescantia Warscewiki.
1 Acalypha Godseffiana.
1 Curmaria Walichii.
1 Pandanus amarilierifolius.
1 Aralia filicifolia.
1 Phylanthus nivosus pictus.
1 Dieffenbachia picta.
1 Hoffmannia variegata.
1 Nephrolepis Davalioides furcans.
1 Adiantum decorum.
2 Acanthaphœnisc Cunninghamii.
2 Seaforthia elegans.
1 Sabal Palmetto.
1 Rhapis flabeliformis.
1 Martinecia Cariotefolia.
1 Cyathea arborea.
1 Pteris Wallichiana, and 15 tree ferns not yet named.
1 Artocarpus cannoni.
1 Musa caventichii.
1 Bambusa.
2 Carica Papaya.
1 Genura aurantiaca Iav.
6 Broughtonia sanguinea.
1 Sobralia macrantha.
1 Odontoglossum Reichenheimii.
1 Odontoglossum ungulatum.
1 Alocasia Wavreniana.
1 Formium tenax.
1 Sacharum Aegyptiacum.
1 Bixa orellana.
1 Oncidium nebulosum.
1 Odontoglossum cordatum.
1 Odontoglossum citrosum.
1 Laelia autumnale.

Lincoln Park Commission, Chicago, Ill.

Collection of Pelargonium, 17 varieties.
Collection of Fuchsia, 12 varieties.
Collection of Begonia, 12 varieties.

1 Polypodium aureum.
1 Nephrolepis Piersoni.
1 Meyena erecta.
1 Acalypha Triumphans.
1 Cissus discolor.
1 Solanum jasminoides.
1 Polypodium supauriculatum.
1 Pentas lanceolata.
1 Acalypha marginata.
1 Alamanda Hendersonii.
1 Coffea arabica, Coffee plant.
1 Clerodendron Balfouri.

West Park Commission, Chicago, Ill.

1 Curmaria Wallichii.
1 Fittonia verschaffeltii.
6 Dieffenbachia, ass't.
1 Anthurium cristallinum.
1 Sanchesia nobilis.
2 Strobelanthes dyerianus.
2 Peperomia grandifolia.
Collection of Caladium, fancy, 22 varieties.
1 Fittonia agyroneura.
1 Costos Zebrina.
1 Anthurium Scherzerianum.
3 Bromelia, ass't.
1 Acalypha Sanderii.
1 Peperomia argyreia.
1 Alocasia Macrohiza variegata.
Collection of Rex Begonia, 17 varieties.
Collection of fancy caladium.
Collection of palm seed (11 varieties); some very rare varieties.

Plants on Exhibition in Horticultural Building.

FERNERY:

MAIDEN HAIR FERN.

Adiantum cuneatum.
" farleyense.
" decorum.
" capilus veneris.
Adiantum cuneatum grandiceps.
" gracillimum, Tropics.
" formosum, Tropics.

AUSTRALIAN TREE FERN.

Alsophylla australis, Australia.

BIRD'S NEST FERN.

Asplenium nidus avis, India. Asplenium bulbiferum, India.
Aspidium tensimense—Aspidium Polystichum angulare, Tropics.
Blechnum braziliensis (tree fern), Brazil.
Cibodium scheides (tree fern), Tropical America.
Cyrtomium falcatum—Cyrtomium fortunci, Tropics.

CONSERVATORY FERNERY—BELLE ISLE PARK.

Davalia fijiensis, Fiji Islands.
Gymnogramma chrysophilla (gold fern), Tropics.
Lomaria intermedia—Lomaria gibba (tree fern), Tropics.
Lygodium scandens (climbing fern), Ceylon.
Microlepia hirta christata, South Sea Islands.
Nephrolepis (sword fern), Tropics.

" Bostoniensis.
" Fosterianum.
" Phillippiensis.
" Davalioides furcans.
" Tuberosa.

Nephrolepis exaltata.
" Wittboldii.
" Duffii.
" rufescens tripinatifida.
" Piersoni.

Nephrodium molle, Tropics.
Onichium lucidum (claw fern), Japan.
Platicerium (staghorn fern), Australia and India.
" alcicorne, Pla biforme, Pla grande.
Polypodium aureum, South America and Australia.
" supauriculatum, Himalaya.
Pteris (ribbon or spider fern), Tropics.
" tremula.
" argyrea.
" cretica.
" Victoria.
" serulata cristata.
Pteris serulata.
" longifolia.
" eretica albo lineata.
" palmata.
" Wallichiana.
Hemitelia horrida (tree fern), West Indies
Cyathea arborea (tree fern), West Indies.
" serra (tree fern), West Indies.
Thamnopteris australasicum (small tree fern), Australia.
Selaginella (Mosses), Tropics.
" Emilliana.
" cæsia.
" cæsia arborea.
" martensii variegata.
Selaginella denticulata.
" denticulata aurea.
" martensii.
Ficus repens (limber), China and Japan.
Dradescantia Zebrina, Tropics.
" discolor, Tropics.
Allamanda Hendersoni (vine), Guiana.
Bignonia rosea violatia (vine), Tropics.
Lophospermum scandens (vine), Mexico.
Cobea scandens (vine), Mexico.

NORTH WING.

Citrus aurantium (Orange tree), sup tropics.
Ficus carica (Fig tree), sup tropics.
Laurus nobilis (Bay tree), temperate zone.
Photinia japonica (Japan medlar or loquat), Japan.
Araucaria excelsa (Norfolk island pine), Norfolk Island.
Araucaria Bidwellii (Bunya bunya pine), Morton Bay.
Aralia Sieboldi, Japan.
Goldfusia isophylla (Cone head), Japan.
Cufea lanceolata, sup tropics.
Coccoloba platyclata (Sea side grape), Solomon Islands.
Magnolia grandiflora, sup tropics.

COLLECTION OF CACTI.

Anhalonium fisuratum—Bishop's hood, Mexico.
Astrophytum myriostychum, Mexico.
Cereus triangularis, Topical Am.
" Colubrinus, Trop. Am.
" coerulescens, Trop. Am.
" Peruvianus, Trop. Am.
" Nicticalus, Trop. Am.
" Eriophonus, Trop. Am,
Cereus grandiflora, Tropical Am.
" " McDonaldii, Trop. Am.
" Dumortieri, Trop. Am.
" Variabilis, Trop. Am.
" Schwartzii.
" flageliformis, Trop. Am.
Epiphyllum truncatum (lobster cactus) Tropics.
Echinocactus, hedgehog cactus.
" pilosus, Mexico.
" cornigerus, Mexico.
" Wislizeni, Arizona.
" Lophothale, Mexico.
Echinocactus Grusoni, Mexico.
" Saltilensis, Mexico.
" Longihamatus, Texas.
" Emæcanthus, West Indies.
Echinocereus chlorantus, Mexico.
Echinopsis fisheri, Mexico.
" cœspitosa, West Indies.
Echinopsis eyriesi, Mexico.
Mamillaria Dolichocentra, Mexico.
" decipiens, West Indies.
Mamillaria montana, West Indies.
" elegans, West Indies.
Opuntia—Prickly pear, Mexico, Brazil and West Indies.
" Tuna.
" multiflora
" Ficus Indica.
" arborescens.
" senilis.
Opuntia, monacantha.
" monacantha variegata.
" microdaysis.
" lurida.
" Polyacantha.
Phyllocactus latifrons (Queen cactus), Mexico.
" Alexandrina, Mexico.
Phyllocereus—Senelis (old man), Mexico.
Gasteria maculata, Gasteria verucosa, Mexico.
Stapelia variegata (carrion flower), Cape of Good Hope.
Euphorbia splendens, sup tropics.
" candelabre, Mexico.
" grandidens, Mexico.
" mamillaris, India.
Euphorbia grandicornis, Mexico.
" Lactea, Tropics.
Aloe Africana, Cape of Good Hope.
" mitræformis flavispina, South Africa.
Aloe varigata, Cape of Good Hope.
" vera, Cape of Good Hope.
" picta, South Africa.
Agave Americana (century plant), South America.
" Americana folis variegatis (century plant), South America.
" Morrisi, Jamaica.
" Yuccæfolia, Mexico.
Agave Victoria, Mexico.
" filifera, Mexico.

Yucca aloefolia (dagger plant), India.
" gloriosa, temp., America.
" aloefolia folis variegatis, West Indies.
" quatricolor, West Indies.

CENTER PALM HOUSE.

Bambusa arundinacea (Bamboo), India.
Areca lutescens (palm), Malabar.
Chamærops humilis (palm), North Africa.
" excelsa (palm), tropical region.
Kentia belmoreana (cabbage palm), New Guinea.
Latania borbonica (bourbon palm), Bourbon Island.
Phœnix (date palm).
" rubicula, India.
" reclinata, South East Africa.
" canariensis, Canary Islands.
" dactilifera, India.
Seaforthia elegans (palm), Tropics.
Acanthophœnix Cunninghamii (palm), New South Wales.
Cocus plumosa (cocoanut palm), Brazil.
Sabal palmetto (palmetto palm), Southern U. S.
Philodendron bipinatifidum, Brazil.
" pertusum, Brazil.
Cycas circinalis (sago palm), East Indies.
Pandanus utilis (screw pine), Madagascar.
" Veitchii (screw pine), Polinesia.
Musa ensete (banana plant), Abissinia.
" caventichii (banana plant), China.
" sæpienta (banana plant), Tropics.
" Zebrina (banana plant), India.
" religiosa (banana plant), Tropics.
Carica papaya (papaw), West Indies.
Bixa orellana (arnatto plant), West Indies.
Ravenalla Madagascariensis (traveler's tree), Madagascar.
Ficus elastica (rubber plants), East Indies.

SOUTH WING.

Philodendron pertusum, Brazil.
" giganteum, South America.
" Jamaica.

Pandanus utilis (screw pine), Brazil.
" Veitchii (screw pine), Polinesia.
" Amarilierifolius (screw pine), Malaga.
Schismatoglotis picta, Tropical America.
Dieffonbachia picta, Borneo.
" memoria corsi, Tropics.
" Leopoldii, South America.
" Bausei, Tropics.
" nobilis, Brazil.
Ficus rubber trees.
" elastica, East India.
" " folis variegatis, East India.
" altissimus, India.
" indica, India.
" maerophylla, Australia.
Fittonia Verschaffeltii, Peru.
" argyroncura, Peru.
Hoffmannia ghiesbreghtii, South America.
" " variegata, South America.
Kentia belmoriana (palm), New Guinea.
Latania borbonica (bourbon palm), Bourbon Islands.
Areca lutescens (cabbage palm), Malabar.
Chamærops excelsa (palm), Tropics.
Sanseviera Zeylanica (bowstring hemp), East Indies.
Victoria Regia (royal water lily), South America.
Strelitzia Reginæ (bird of paradise flower), South Africa.
Scyanophyllum magnificum, Mexico.
Isolepis graeilis (club grass), tropical region.
Astrapæa Wallichii, Malaya.
Sanchesia nobilis, Equadore.
Aralia filifolia, Polinesia.
" macerohiza, Tropics.
" guilfoilii variegata, South Sea Islands.
Calathea zebrina, Brazil.
" bicolor, Brazil.
" micans, South America.
Curmaria, Wallisii, Columbia.
Eranthemum tricolor, Tropics.
" atropurpureum, Tropics.
" variegatum. Tropics.
Artocarpus cannoni (bread fruit tree) Society Islands.
Coffea Arabica (coffee plant), Abissinia.
Genura aurantiaca, Java.

Antropogon citratum (lemon grass), India.
Livistonia rotundifolia (palm), Malay Islands.
Alocasia argyrea, Malaya.
" Lindeni, Malaya.
" Wavreniana, Tropics.
" Chelsonii, Borneo.
Alocasia Vei,chii, Polinesia.
" macrohiza, variegata, Ceylon.
" (new, no name), West Indies.
Saintpaulia conantha (African violet), South Africa.
Pentas lanceolata, Madagascar.
Mayena erecta, tropical region.
Grevillea robusta, Australia.
Sterculea platanifolia (Chinese parasol), China.
Saccharum officinarum (sugar cane), tropical region.
Peperomia argyroueura (pepper), Brazil.
" grandifolia (pepper), Brazil.
Martinecia caryotæfolia (palm), New Grenada.
Rhapis flabelliformis (ground rattan cane), China and Japan.
" humilis (ground rattan cane), China and Japan.
Carludovica gracilis (palm), West Indies.
Hypophorba verschaffeltii (palm), Rodriquez.
Sabal Beratus (palm), West Indies.
Thrinax morrisii (palm), West Indies.
Areea Alicæ (palm), North Australia.
Cycas revoluta (sago palm), India.
Panax elegans (ginseng), Queens Islands.
" Victoria (Ginseng), Pacific Islands.

ORCHID HOUSE.

Broughtonia sanguinea (orchids), Jamaica.
Oncidium, nebulosum (orchids), Tropics.
Sobralia macrantha (orchids), Mexico.
Odontoglossum cordatum (orchids), Mexico.
" Reichenheimii (orchids), Guatemala.
" citrosmnm (orchids), Guatemala.
" ungulatum (orchids), Mexico.
Laelia ontumnale (orchids), Mexico.
Bromelia, Billbergia, Ananassa and Tillantia, ass't, Tropics.
Anthurium scherzerianum (tail flower), Costa Rica.
" andreanum (tail flower), Columbia.
" crystallinum (tail flower), Columbia.
Costus Zebrina, Tropics.

Calanthe veitchii.
Catasetum species.
Catleya Bowringeana, Hunduras.
" citrina, Mexico.
" Doweana, Costa Rica.
" gutata, Brazil.
" intermedia, Brazil.
" Mendelii, Columbia.
" Percivaliana, Venezuela.
" Skinneri, Central America.
" trianæ, Columbia.
" Maxima, Columbia.
Catleya Forbesii, Brazil
" gigas, Columbia.
" gaskelliana, Venezuela.
" Harrisoniæ, Brazil.
" Labiata, Brazil.
" Mosiæ, Venezuela.
" Schroderæ, Hybrid.
" Speciosissima.
" Warnerii, Brazil.
Laelia harpophylla, Brazil.
" majalils, Mexico.
" Perrinii, Colombia.
" Albida, Mexico.
" crispa, Brazil.
" Dayana, Brazil.
Laelia joungheana, Brazil.
" Patinii, Brazil.
" Purpurata, Brazil.
" anceps, Mexico.
" " alba, Hybrid.
" grandis tenebrosa, Bahia.
Chysis aurea, Mexico.
Cœlogyne cristata, East India.
" Massangeana, Borneo.
Cœlogine dayana, Borneo.
Cymbidium Loweanum, Burma.
Dendrobium chrysanthum, India.
" chhrysotoxum, India.
" nobile, India.
" thyrsiflorum, India.
" Wardianum, India,
Dendrobium densiflorum, India.
" foamosum giganteum, India.
" phalænopsis Schroederianum, [New Guenia.
Epidendrum rhizophorum, Central America.
" vitellianum majus, Mexico.
Lycaste Skinneri, Guatemala.
Lycaste aromatica, Mexico.
Miltonia candida, Brazil.
Miltonia morelliana, Brazil.
Odondoglossum grande, Guatemala.
" Rossii majus, Mexico.
Odondoglossum Insleayi, Mexico.
" Schliperianum, Costa Rica.
Oncidium cavendishianum, Mexico.
" curtum, Brazil.
" Harrisonianum, Brazil.
" Kramerianum, Brazil.
" ornithorynghum, Mexico.
" sarcodes, Brazil.
Oncidium crispum, Brazil.
" Forbessi, Brazil.
" incurvum, Mexico.
" Marshallianum, Brazil.
" papileo, Venezuela.
" varicosum Rogersii, Hybrides.
Peristeria elata, Panama.
Schomburgkia undulata, Venezuela.
Sophronitis grandiflora, Brazil.
Stanhopea insigne, Brazil.

Trichopilia suavis, Costa Rica.
Vanda coerulea, India.
Zycopetalum Makayi, Brazil.
Cypripedium colorum, Tropics.
" grande, Tropics.
" Harrisoniana, Tropics.
" insigne, Tropics.
" Lawrensianum, Tropics.
" œnanthrum, Tropics.
" Schroderæ, Tropics.
" venustum, Tropics.
" villosum, Tropics.
Vanda, Kimballiana, Tropics.
Zycopetalum crinitum, Hybrid.

PONY CONVEYANCES—BELLE ISLE PARK.

Heating and Power Plant: The results obtained by the operation of the heating and power plant have been satisfactory in every respect. To heat the aquarium, conservatory, new greenhouses and Inselruhe, during the coldest weather, a daily average of about three tons of slack coal was consumed.

Zoological Department: As the zoo increases in size so also does it in popularity.

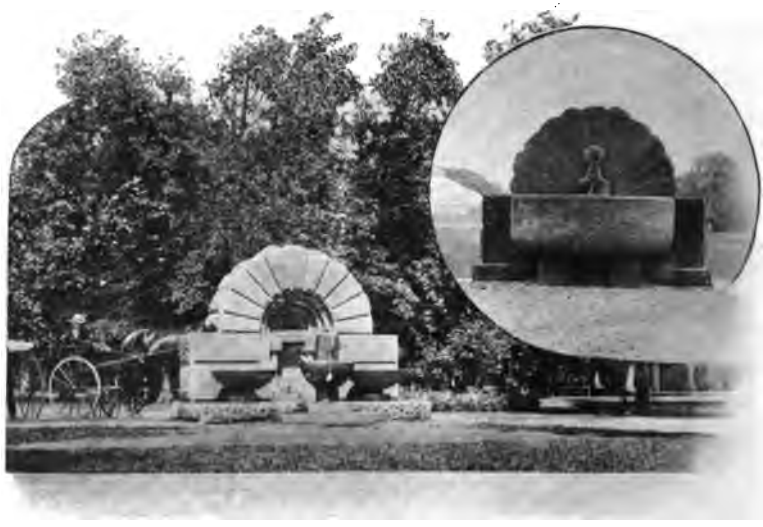
A large animal shelter is under construction for various specimens of the deer family. The building will be completed during the coming fiscal year within the appropriation. The paddocks around the building will be well drained, separated, by radiating fences, all of which will afford better facilities, for the care of animals. This building supplies a long felt necessity, as frequently valuable animals have died from exposure.

It has become necessary for the safety of a large number of visitors to exclude vehicles from a portion of the zoo grounds, and therefore the roadway across the bridge over the inlet to Swan lake has been given up wholly to the use of pedestrains.

Animals to be seen at the zoo:

10	Alligators	Alligator mississippienis.
4	Buffaloes	Bison americanus.
2	Bears, polar	Thalarctos maritimus.
1	" grizzly	Ursus horribilis.
2	" black	Ursus americanus.
2	Badgers	Taxidea americana.
1	Buzzard	Catharter aura.
1	Duck, wood	Aix sponsa.
2	" Mandrin	Aix galericulata.
15	Deer, Virginia	Cariacus virginianus.
2	" red	Cervus elaphus.
3	" brown fallow	Cervus dama.
3	" white fallow	Cervus dama.
2	" mule	Cariacus macrotis,
1	" black tail	Cariacus columbianus.
2	" Sambur	Cervus aristotelis.
1	" axis	Cervus axis.
7	Elk	Cervus canadensis.
4	Eagle, bald	Haliaetus lencocephalus.
1	" golden	Aquila chrysaetos.
2	Fox, red	Canis valpes fulvus.
8	Geese, wild	Branta canadensis.
2	" Poland	
4	Guinea fowl	Numida meleagris.
2	Guinea pigs	Caviidoe cutleri.

1 Lynx, Canada..... Lynx canadensis.
1 " bay.....Lynx rufus.
3 Ostriches,.....Struthio camelus.
6 Owls, horned.....Bubo virginianus.
12 Prairie dogs .....Cynomys ludovicianus
1 Pheasants, Amherst.....Chrysolophus amherstiae.
3 " golden.....Chrysopholus pictus.
5 " ringnecked.....Phasianus torquatus.
4 " silver .....Euplocamus nycthemerus.
6 Raccoons.....Procyon lotor.



BROWN STONE ICE WATER DRINKING AND ANIMAL FOUNTAIN, BELLE ISLE PARK.

4 Rabbits, English.....Lepus cuniculus.
2 Sea lions ....Zalophus californianus.
9 Swans, white.....Cygnuo olor.
3 " black..... Chenopis atrata.
2 Wolves, gray.....Canis lupus.
2 " timber .....Canis lupus.
2 Zebu Cattle.....Bos indicus.

Also a large number of quail, pigeons and squirrels at large on the park.

Brown Stone Fountain: The brown stone combined ice water drinking and animal fountain which was presented by the L'Anse Brown Stone Co., being their exhibit at the Pan American Exposition at Buffalo in 1901 is now completed and in use. The fountain has been given a prominent place at the southwest corner of the intersection of Loiter and Picnic driveways.

Implement and Wagon Shed: The shed just east of the barn was added to so far as the money allowed would permit and to complete the structure it will require about $10,000.00. It is hoped that money will be appropriated, that this much needed improvement may be completed.

Wolf Enclosure: A new and permanent iron fence was placed around the wolf enclosure and brick shelters erected which makes this portion of the zoo complete.

Bridges: There was erected on Woodside drive over the inlet to Nashua canal at the west end of Lake Okonoka, a bridge known as No. 16. The bridge is built of random faced Kelly island limestone and cost $3,500.00.

Also bridge No. 13 was erected over Nashua canal just east of barn on the roadway leading from Loiterway to the athletic field, this being the main thoroughfare to the base ball grounds. The bridge is a large one and built of rubbed sand stone and cost $5,500.00.

Roadway: A large number of square yards of roadway on the island park were resurfaced with crushed cobble stone, which greatly improves the roadways, and adds much to the pleasure of driving on Belle Isle park.

Athletic Field: Considerable work has been done by way of improvements to the thirty acre athletic field, which when completed will be greatly appreciated by those who enjoy athletic sports.

Palmer Park: A men's toilet building permanent in character and rustic in appearance was erected at the edge of the picnic woods north of the log cabin ; this was a neeeded improvement and cost $2,000.00.

A sewer was laid north of the casino building connecting with the main sewer for the purpose of draining the aboretum, which heretofore has been without drainage.

MEN'S TOILET—PALMER PARK.

The capacity of the ice house was increased so that sufficient ice might be stored to meet the demands.

Many other minor improvements were made for the pleasure and comfort of the visitors to this rural park.

Clark Park: The improvements of this park consisted chiefly in completing the athletic field situated at the southern extremity of the park. A cement walk across the park east and west on a line with Porter street was also built; together with numerous other small improvements.

City Parks: While no money was appropriated for Atkinson park, a good start has been made with the housand dollars which Mr. John Atkinson presented to the city for its improvement. With the money, some of the water pipe has been laid and a goodly number of large trees set out.

All other city parks have received their share of improvement, such as planting of trees, surface sprinkling pipe system, etc.

Boulevards: The resurfacing of the Grand Boulevard has been carried forward as rapidly and judiciously as the appropriation would admit.

The crushed granite required for this work was the product of the board's stone crusher, which during the season was operated 77 days, producing 3,352 cubic yards of crushed cobble stone at a cost of $1,500 or 44½c per cubic yard.

Brick roadway intersections were constructed at Mack, Ash and Dix avenues.

The roadway on the improved section of the boulevard, from Fort street to the river, was graded.

A portion of the necessary surface sprinkling pipe system, from Mack to Gratiot and from 18th to Grand River, was laid.

A large dock was built at the foot of the Western Grand Boulevard, costing $10,883.07.

But little improvement could be done on Lafayette Boulevard with the small appropriation allowed, $250.00; therefore nothing was done and the money still remains in the city treasury to be added to next year's appropriation.

Maintenance: The care and protection of the park and boulevard system is of no small importance. It has fourteen miles of boulevard, twenty-six small parks besides Belle Isle and Palmer parks, in all making some twelve hundred acres. It requires a forty-five mile drive to visit the entire system.

To cut the lawns and sprinkle them with the hundreds of flower beds and miles of roadway requires a large force of men, but this work is small compared with the numerous

MERRY-GO-ROUND—PALMER PARK.

other requirements necessary to keep our park and boulevard system in a neat and presentable condition for the public.

Respectfully submitted,

R. E. Bolger,
Commissioner.

M. P. Hurlbut,
Secretary.

June 30th, 1904.

ADDRESS OF COMMISSIONER R. E. BOLGER

Upon the formal opening of the Aquarium and Horticultural Buildings, August 18, 1904.

Printed and added to this report in compliance of a resolution of the Common Council September 13, 1904.

Ladies and Gentlemen:—

I feel honored today in being able to congratulate you on the formal opening of your aquarium, and to say a few words to you in relation to the cost, and the general history of what led to Detroit placing on Belle Isle the third largest aquarium in the world.

Representative David E. Heineman, who had been touring in Europe, while passing through Naples, visited the aquarium at that place, and was so struck with its beauty that he conceived the idea that if the people of Detroit had a building of the kind it would add greatly to the beauties of his home city. With this idea in mind, he introduced a bill in the legislature, and that body passed an enabling act, which was approved May 26, 1899, authorizing the city of Detroit to issue bonds for $150,000 if approved by a vote of the people. The bonds were issued, and on March 1, 1900, $150,000 was placed in the city treasury to the credit of the park improvement fund.

Competitive designs were advertised for and received October 15, 1900. A jury (each member of which was eminent in his profession) was selected to pass upon the designs. The gentlemen were Messrs John G. Howard and Cass Gilbert, architects, New York City; Wm. deC. Ravenel, of Washington, D. C., aquarist in our government's employ, and Prof. Jno. F. Colwell, horticulturist, of the Buffalo botanic gardens, Buffalo, N. Y. The jury selected the design prepared by Nettleton & Kahn, as the best one submitted to cover all purposes, and upon the decision of the jury, a contract was made with that firm as architects for the proposed building. This firm was later succeeded by Mason & Kahn.

Plans and specifications were prepared for the combined building and heating and power plant, using as a foundation their premiated design. Bids were advertised for, proposals received on August 19, 1901 and contracts let soon thereafter.

On December 7, 1903, bids were received for the equipment of the aquarium which were $14,000 in excess of the amount of the appropriation left for the purpose; this was due almost wholly to the advance in the price of material and labor, for bills for extras for the construction of the entire building and equipment will be less than $1,000.

A contract was let for only a portion of the equipment and a report was made to the common council, February 2, 1904, of the facts. That body, by resolution, transferred from the house of correction fund to the park improvement fund $11,000, and directed me to use $3,000 of the surplus receipts of this commission, which permitted the letting of the final contract on March 15, 1904, for the completion of the equipment. Therefore, the total cost to the city of the aquarium, horticultural building and the entire equipment including the heating and power plant will be $164,000.00

This aquarium is pronounced by the leading aquarists of this country to be second to none in the world, so far as arrangement and equipment are concerned for economical maintenance; it, however, ranks third in size. The aquarium in New York City is much the largest, having double the number of exhibition tanks and pools of any other. The aquarium at Brighton, England, has forty-one tanks, but they are much larger than ours. In their aquarium building, there is also a theater, restaurant, dining and billiard rooms, shooting galleries, reading and naturalists' rooms besides all the other work rooms required. The most scientific aquarium is at Naples, Italy. In fact, it is a biological station under the Italian government. There are only some six or seven other permanent aquaria known.

Our aquarium has forty-four exhibition or wall tanks, with a capacity of 18,180 gallons; two side or wall pools, with a capacity of 5,780 gallons; a center pool with a capacity of 8,531 gallons; twelve reserve or hospital tanks, where surplus stock are kept or in which sick fish are treated, with a capacity of 2,700 gallons; two large storage pools for sea water, with a capacity of 22,800 gallons; three supply tanks with a capacity of 5,166 gallons; three cisterns with a capacity of 864 gallons, and the piping system which holds 986 gallons, making a total capacity for water necessary to be stored for the commencement of the operation of the aquarium of 65,007 gallons. 30,000 gallons of this is sea water, brought here June 28, 1904, in tank cars, (the use of which was furnished gratis by the Standard Oil Co. through the kindness of Mr. Chas. H. Rowe) from Woods Hole, Mass., where, because of the purity of the water, our government has a biological station.

This sea water can be used repeatedly for an indefinite period by filtering and resting it, by which process after a short time, it resumes its normal condition; the loss by evaporation is supplied by fresh water. The aquarium at Hamburg, Germany, has used in a like manner, the same water, which they brought from the North Sea, because of its purity, for over thirty-six years.

The rest of the 65,000 gallons required in the operation of our aquarium, is river water, but this, however, must also be filtered before use.

The tanks on the east side and the center pool are supplied through a double line of pipes. The one for sea water is wrought iron and lead lined to avoid discoloration of the water from rust, which the presence of salt causes. The other line is galvanized wrought iron, thus permitting any tank on the east side of the building to be used for either sea or fresh water specimens. The south half of the building on the west side has also a double line of supply pipes, both lines being of galvanized iron. One is used for cooled or refrigerated water for the trout family, the other for fish not requiring water of a special temperature. The north half of the west side and the two side pools have but one line of supply pipes which is for fresh water.

To operate this aquarium, 50,000 gallons of the 65,000 gallons required must be kept in constant circulation both day and night, as in many of the tanks, the water changes several times hourly.

The machinery to operate this aquarium is located in the basement and consists of an air pump for aerating the water, thus supplying the fish with oxygen, which has a capacity at 25 lbs. pressure of 720 cubic feet of air per hour; a circulating refrigerating water pump with a capacity of 6,000 gallons per hour for the trout family; a circulating fresh water pump, with a capacity of 10,000 gallons per hour, for our lake and river fish; a circulating sea water pump, nickel lined, with a capacity of 9,000 gallons per hour; a ten ton refrigerating plant to cool the water for the trout family; a power filter for refrigerated water with a capacity of 3,600 gallons per hour and one for fresh water with a capacity of 4,200 gallons per hour; a gravity filter for sea water, with a capacity of 4,000 gallons per hour; also a heater of sufficient size to temper the sea water during the winter season.

In addition to all this, there will be seen in the basement the two twenty-five horse power pumps with a total capacity of 108,000 gallons per hour, which are used for circulating hot water for heating the aquarium, conservatory and greenhouse buildings, which requires more than five miles of pipe. In adddition, there are four one hundred horse power boilers, a blower for the ventilating system, a blower for draught under boilers, stokers, condenser, circulating ice water drinking pumps, etc.

The horticultural building contains a circular center palm-house, 72 feet in diameter, with a dome 80 feet in height and a floor space of 4,070 square feet. The north palm-house has 1,670 square feet of floor space, the south palm-house 2,880 square feet. The orchid house on the extreme south contains 450 square feet. The fernery on the extreme north end is depressed, that the exhibit may be better viewed, and has 1,720 square feet floor space. Last, but not least, the exhibition house for floral exhibits contains 3,210 square feet floor space and is east of the center palm-house adjoining the aquarium, in which it is my purpose at all seasons of the year to have on exhibition a display of flowering plants. In the permanent show house, all specimens will bear labels giving the botanic and common names and the country to which the plants are native, as well as the family to which they belong.

There are now on exhibition many rare plants, donations from the Lincoln Park, West Park and South Park commissions of Chicago, the Buffalo botanical gardens, and from the famous Phipps conservatory of Pittsburgh, Pa., as well as some smaller specimens from generously disposed citizens of Detroit.

It is also intended to use a part of the basement of this building for educational purposes, for the teaching of botany, etc. I propose in the near future to invite the teachers of botany in our public schools to take advantage of the facilities that we can offer them in showing and explaining to them the different plants aud shrubs and will aid them in their studies, and I am sure the scholars will enjoy it far more to study on Belle Isle park than they can in their class rooms in the city.

I know it is wholly unnecessary for me to try to introduce to this assemblage of citizens so well known and so popular a person as our worthy Mayor Wm. C. Maybury, who will welcome you to your aquarium.

GENERAL SUPERINTENDENT'S REPORT

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—The past year has been an exceptional one in many ways; the fall season set in unusually early and extended until the latter part of November, during which time, at intervals, heavy frost occurred affecting the foliage, which occasioned an unusual amount of labor in keeping the parks clean. The excessive and continuous cold during the winter did great damage to the trees in general, killing a great number of catalpas.

The trees in some localities on the boulevard and in the parks in general were found to be infected with tussock moths and San Jose scale, and steps were immediately taken to eradicate same. The trees found to be most affected were the maples, locust, mountain ash and horse chestnut, the latter being seriously affected. All of these unforeseen circumstances arising together were responsible for a serious tax to the general maintenance funds.

Following is a statement of the maintenance of the system and improvements as carried on under my supervision and in accordance with the appropriations allowed:

Boulevard: The planting of elm trees having a diameter of from 5 to 8 inches has been continued as in former years. It has been my experience that there has been no greater loss in the large than the small tree and the benefit is received in its second year.

All trees infected with San Jose scale were given a thorough cleaning by our forester, after which they were well sprayed with a disinfecting solution to destroy the nits.

The grass was watered regularly and kept closely cut, which can be well appreciated as it has grown much thicker; this portion of the boulevard maintenance amounts to quite an item as there are upwards of 125 acres of lawn.

All ornamental flower beds were planted with tulips and hyacinths for an eye-greeting in the early spring; these suffered greatly from the heavy frosts during April and in some localities were completely destroyed. As soon as the condition of the soil would permit, the beds were changed to flowering plants.

The appropriation for resurfacing of the boulevard, as much cobble as was available at a reasonable price was purchased and shipped to our crusher, for building and resurfacing the roads and walks in the park system in general. The crusher was started as early in the spring as was deemed advisable and ran uninterruptedly until as late in the fall as the weather permitted, and from the record of quantities crushed the percentage of fine stone was somewhat increased over last year.

As the old cobble pavements, from which we have, in the past, been given the opportunity of purchasing at a nominal cost, are fast being replaced with more modern ones, the availability of obtaining this material at a minimum is nearing an end, which will suggest in the near future our having to go to the interior of the state to obtain same, which will add considerably to the expense of good road building.

The section between Woodward avenue and Twelfth street, being a double roadway for a distance of one mile, was found to be seriously in need of repair and being that the quantity

of material required to resurface same would be greatly in excess of our output, the same was repaired in a general way, filling up the depressions and finishing with fine gran-

PINGREE MONUMENT—GRAND CIRCUS PARK. ERECTED BY PUBLIC SUBSCRIPTION.

ite. Between Moran and Frederick streets was entirely resurfaced, a distance of one mile, and comprise an area of 29,300 square yards, and required a filling from 2 to 4 inches of material.

The appropriation of $2,000 made for opening the boulevard from Fort street to River street, was expended in grading, and the section was laid out in accordance with your plan, the opening at Fort street being made sufficiently broad to permit of crossing Fort street on as near a straight line as it was possible, to avoid the effect occasioned by the jog, which is about 80 ft. Two driveways each having a width of 30 ft. lead from the entrance on curves to produce a pleasing topographical effect; the center lawns are, therefore, varied in style and afford an opportunity for ornamental planting that when the same is completed promises to be one of the most attractive sections of the boulevard.

The water front which has a width of 200 ft. was sheet piled from the Wabash railroad right-of-way for a distance of 540 ft. on the east line of the boulevard to a water-depth of 13½ ft. This piling was constructed of white oak, caps and waleings and white pine tongued and grooved sheeting, the inner tee-rod piles being of live elm. All piles were set with a penetration of from 15 to 20 ft. as was found necessary to obtain a solid foundation; snubbing posts were set in where necessary. Fenders were constructed to protect the front and five cluster piles of six piles to a cluster were set in on the east side of piling 25 ft. apart to protect same.

The balance of the appropriation, together with the $750.00 appropriated by the common council was expended for labor to handle the material brought for filling which was upwards of 20,000 cubic yards. The east side was first cared for to be in a safe condition to withstand the great strain occasioned by the heavy ice flow in the spring.

The intersection on the north side of Fort street was improved. The center lawn was provided with new curb set on long circles and the old crosswalks were taken up and replaced with macadam. The large elm tree that formerly stood in the roadway was taken out, that the roadway might be opened to meet the new addition from Fort to River street. At Baker street the center lawns were cut back to permit of the walks being on a level with the roadbed and the old-styled square-cornered curbs were replaced with suitably broad circles and the crossing macadamized.

There were three intersections constructed with brick on a concrete foundation, viz: Dix avenue, Ash street, and Mack avenue. Nelsonville brick was used and the work thoroughly completed for the appropriation allowed. There were also constructed intersections of macadam at Beaufait and at Ferry avenues, they being streets recently opened across the boulevard. The walks were laid and the lawns cut down to conform to grades and sodded.

A surface water system was put in between Eighteenth street and Grand River avenue and between Mack and Gratiot avenues as far as the limited appropriation would allow. In each instance, large connections were made to the main to insure a good supply.

The north half of the center lawn between Dubois and Chene street, known as Fairmount park, was graded and the outer edge for 15 ft. was sodded. The total length of Fairmount park was one-quarter of a mile and the portion graded has an area of 1,000 sq. yds. A brick tool house was constructed in this section near Chene street, the inside dimensions being 5 x 8 ft., 4 ft. being under the grade, leaving but 2 ft. 6 in. exposed, above which when planted around with shrubbery will make it unobservable. These houses are not only very convenient for the storage of tools, hose, etc., but a great protection from theft.

The water front at Park Rest, adjoining the Belle Isle bridge approach was filled in to a line with the bridge abutment, in accordance with a request of the common council, which has greatly improved the sanitary condition of this locality.

Owen Park: The filling in to the grade as established by you has been continued during the past year, being that the demand in this locality for material for filling has been so great, that but a small quantity compared with what is required to complete the park could be obtained, which was about 5,000 cu. yds.; this section was spread with a sufficient quantity of loam and sodded, which had an area of 999 sq. yds. Eighteen large elm trees were set in along the walks and on the west line of the park.

OWEN PARK, NORTH FROM DOCK.

A privet hedge 4 feet high was planted on the east and west lines of the park from Jefferson avenue to as far as the filling extends which in one season will not only serve to beautify the park, but will with the line of poplar trees set out last season, completely shut out from view the adjoining property which is, as river front property usually is, unimproved.

The water front filling has been continued and now reaches to within about 100 ft. of the end of the dock which, when the same is completed (which will require comparatively little more work) will be one of the most interesting river viewing points on the river front.

Clark Park: The maintenance of this park in particular has been kept up to a high standard during the past year, and is an item that is rapidly increasing. The park proper has become very popular for picnic parties and the merry-go-round constructed last year serves as a great source of enjoyment for the children.

The roads and walks were given their required attention, having been evenly graded and well rolled. The shrubs were also well cared for, which could be well appreciated, as they offered a very attractive decoration.

The corners around the lakes on either side of the road between the lakes were planted with a variety of shrubs, which adds greatly to the surroundings.

The appreciation that the public has for the band concerts held here can be no better demonstrated, as it is a common occurrence to see the park uncomfortably crowded.

The grading on the athletic field was completed; the soil being of sand and gravel, required a dressing of loam and manure, which was then seeded.

Two base ball diamonds were laid out and built in a manner as required in regulation diamonds and the runways were sodded for six feet on either side. They were located at equal distances between Scotten and Clark avenues with back stops at a safe distance from Lafayette avenue, which leaves a field of over 400 ft. which makes the crossing at the

ATHLETIC FIELD—CLARK PARK.

lower end of the park practically safe to pedestrians and also the residences from foul balls. A drinking fountain was erected between both back stops and a surface water system was put in to properly care for the grounds.

It was found necessary to do more filling at the north end of the athletic field to properly grade same to the natural knolls, which required about 300 cu. yds. of earth; this was given a surfacing of loam and sodded; this section completed has an area of about 6,000 sq. yds.

Atkinson Park: This property, acquired by the city for a park is 850.63 ft. long and 690.61 ft. wide and is bounded by Thirty-fourth st., Wesson ave., Devereaux st. and McGraw ave., and contains 13,470 acres.

There was never any improvements made to this section save the opening of the streets around same. The one thousand dollars donated by Mr. John Atkinson was, in accordance with your instructions, expended in laying a four inch water main from the center of Thirty-fourth and Devereaux sts. diagonally to the center of the park, a distance of 597 feet. Four inch tees were placed at intervals of one hundred feet preparatory to the extension, at any future time, of a surface water system, which is a preliminary improvement. The balance was expended in planting a number of shapely elm trees of from 4 to 5 inches in diameter on the line of Devereaux, Thirty-fourth sts. and as far on McGraw ave. as the money would permit of.

Boston: The center lawn between Brush st. and Oakland ave., a distance of one-quarter of a mile was graded to conform with the roadway as the same will be when paved. A surface water system was extended from the main at Brush st. through the center of the parkway, to properly care for all improvements in the future.

The boulevard in a general way, was given its usually required amount of attention, principally in the direction of edging up lawns around shrubbery beds and curbs.

Medbury: The center lawn between John R and Brush sts. was given a surface water system, doing away with the using of a hydrant for the purpose of sprinkling, which has in the past required the use of several hundred feet of hose. This section was all that it was possible to do with the appropriation allowed.

MOFFAT FOUNTAIN—GRAND BOULEVARD AND W. FORT STREET.

Voigt: Two four inch water connections were made in the Longfellow ave. main, which is a six inch pipe and was extended across the roadway into the park, reducers being placed on same and pipes extended to the surface preparatory to establishing a surface water system which will be required as soon as the planting is commenced. All the

available dirt excavated for the construction of Longfellow ave. pavement was deposited along the north line of the park last fall and as soon as the season permitted the surface loam was taken up along the north half of the park and placed in piles: the filling was then spread to an even grade that would nicely conform with the requirements both for drainage and appearance. The loam was then spread to a depth of two inches. In accordance with your request, twenty-five feet from the curb line of Longfellow ave. the grade was so established as to leave a terrace of twelve inches, the lower grade being sufficiently broad to permit of a walk and still leave room for planting of shade trees between the walk and curb.

Belle Isle: Two new permanent bridges known as numbers 13 and 16 were constructed during the last year.

Bridge No. 13 over Nashua canal, joins the zoo grounds with the athletic field; its foundation is of concrete with paving brick for a facing, the superstructure being entirely of sawed Bedford limestone. The abutment piers are square in design, massive and have an elevation of about 5 ft. The balustrades are of ornamental grill work.

Bridge No. 16 is located over Nashua canal at the outlet to Lake Okonoka and is built entirely of rock faced rubble stone: it is somewhat rustic in design and is very artistically designed for its particular locality.

The approaches to both of these bridges for a distance of 200 ft. on either side required to be entirely changed, which required a great amount of filling. The roads were macadamized with a suitable slag foundation, the total area of which was 3,000 square yards.

There remains but one more temporary rustic bridge to be replaced, bridge No. 22 on Riverside drive over Marsh Run.

The upper portion of the athletic field was subdivided into spaces for tennis courts, basket ball and croquet. There were

also three more base ball diamonds added and were located directly in the rear of those formerly laid out, that the back stops could be utilized by two diamonds.

There was appropriation for a wolf enclosure; this was built of $\frac{3}{16}$ round iron, seven feet high, the pickets circling at the top forming an apron to prevent the animals climbing over. A foundation of cement extends for the entire length 12 inches wide at the bottom and 12 inches deep, 6 inches being above the grade and trowel finished; the pickets penetrate same for a depth of six inches.

Two shelter buildings were built of brick with concrete floors; each has two compartments of 5 ft. square.

The section of the zoo grounds between the ostrich shelter and the elk paddock having a frontage on Central avenue of 370 ft., with an average width of 230 ft. between Central avenue and Loiter way, has, as you have selected, been taken for the location of the animal shelter. In the center of this space the erection of a modern and suitable shelter has been commenced, 30 ft. in width by 130 ft. in length, having a foundation of building stone to the grade line, the upper portion being of limestone and plaster veneer with a tile roof. The floors will be of cement. The building will have an elevation of 2 ft. above the roadways on either side.

Five more sections of nineteen feet each in length were added to the implement shelter, being all that was possible to build with the appropriation made.

The swan lake and enclosure in the zoo grounds was changed and improved in a general way. The lake proper was broadened and all the old lake foundation was removed and filled with slag, which was well tamped. The bottom of the lake was then concreted to a grade of six inches above the water line.

A six inch crock sewer was laid for the woman's toilet which is located in the picnic grounds between Central ave. and Loiter way. This was found necessary owing to the

unusually high elevation of the river to what it has been in the past.

A drinking fountain of brownstone, a gift of L'Ance Brown Stone Co., was erected at the intersection of Loiter and Picnic ways; it is very ornamental in design and unlike any of the other fountains formerly built. It has a large ice receptacle with a coil of pipe for cooling the water. The grade around the fountain was raised and macadamized.

The following roads and walks were built of macadam during the last year:

Loiter way from Picnic way to bridge No. 13, a distance of 1,200 ft. and has an area of 4,000 sq. yds.

The Strand, from a point opposite skating pavilion to bridge No. 12, a distance of 3,000 ft. and has an area of 9,000 sq. yds.

The approaches to bridges to Nos. 10, 13 and 16 were also macadamized the total area of which was over 200 sq. yds.

Palmer Park: There was erected a men's toilet which was located at the edge of the picnic grounds and just across the roadway from the women's toilet, also is in the rear of the log cabin and is very tastefully designed particularly for its adapted location.

Through the arboretum was constructed an eight inch crock sewer, the location being northwest from the main sewer and extends to the county ditch, a distance of twelve hundred feet. The joints were well cemented to avoid draining only sections as were intended to be tiled to same.

Much attention has been devoted to the general maintenance, which has been as well conducted as the appropriation would afford, and is becoming more expensive year by year.

Nursery: There were taken from the nursery during the year and planted out:

155	trees, valued at . . .	$ 165 50
158	evergreens, valued at . . .	434 00
7,879	shrubs, valued at . . .	2,020 25
275	herbaceous plants, valued at . .	41 25
19,200	bedding plants, valued at . .	605 00
27,667		$3,266 00

The inventory of the nursery shows:

12,252	trees, valued at	$2,905 12
195	evergreens, valued at . .	468 00
31,140	shrubs, valued at	9,285 00
1,269	herbaceous plants, valued at . .	125 00
44,856		$12,783 12

Smaller Parks: The general maintenance of the smaller parks and parkways, was well cared for; the lawns were, where worn out, replaced with new sod; walks resurfaced where needed and tastefully ornamented with varieties of flowering plants to create a pleasing effect.

The following is an inventory of the trees, evergreens, shrubs and herbaceous plants that have been set out on the boulevard and city parks and parkways :

NAME.	Roses	Trees	Ever-greens	Shrubs	Herbaceous Plants
Atkinson Park		38			
Boston	204	222	23	1,692	323
Cass		159	3	66	
Campau		60		721	
Cadillac		45		801	
Capitol		23		33	
City Hall		6			
Clark		530	57	3 893	238
Clinton		30		340	
Crawford		24		25	
Elton		18			
Grand Circus		197	1	1,005	
Harmonie		18		83	
Macomb		42			
Medbury		226	5	541	
Opera House			20		
Owen		119	16	1,270	
Palmer		2.124	73	5,284	315
Perrien		186		975	
Recreation		83		512	
Second Ave		130	30	1	
Stanton		38			
Washington		181	63	1,043	
West		25		95	
Grand Boulevard		5.500	458	15,153	828
Lafayette Boulevard		671			
Totals	204	10,695	749	33,533	1,704

Respectfully submitted.

W. D. HEALY,

General Sup't.

June 30, 1904.

SOLDIERS' AND SAILORS' MONUMENT—CAMPUS MARTIUS.

ENGINEER'S REPORT.

To the Honorable, the Commissioner of Parks and Boulevards :

DEAR SIR :—The surveys, plans, specifications, profiles and estimates for all the work, both preliminary to and actually carried out, through the direction of the general superintendent, were prepared and staked at locations selected. There were also plans, estimates, etc., prepared for future improvements to the system, as I was directed to do, for the annual budget.

The record maps have been kept up to date, showing all intricate details of improvements made. In addition, this department has had charge of the entire water and drainage system of the city parks and boulevards.

Respectfully submitted,

F. O. RAY,
Engineer.

June 30, 1904.

NASHUA CANAL, NEAR BRIDGE NO. 16,
BELLE ISLE PARK.

SECRETARY'S REPORT

To the Honorable, the Commissioner of Parks and Boulevards :

DEAR SIR:—Herewith is submitted the annual financial statement showing the cash balances of the funds in the city treasury at the close of business for the fiscal year ending June 30, 1904 :

Park and boulevard fund balance, .	$114,476 79
Park improvement fund balance,	8,175 07

The above balances are certified to by the city controller as per his statement hereto attached.

Embodied in this report is an itemized list of the principal improvements, the cost thereof, bonds issued, estimates asked for and the amounts allowed, together with the yearly expenditures of moneys received from all sources since the first park was established in 1854.

Respectfully submitted,

M. P. HURLBUT,
Secretary.

June 30, 1904.

OFFICE OF THE CONTROLLER,
DETROIT, July 4, 1904.

HON. M. P. HURLBUT, Secretary,
Park and Boulevard Commissioner,
Detroit, Mich.

DEAR SIR:—I hereby certify that the cash balance to the credit of the park and boulevard fund at the close of business June 30, 1904, was $114,476 79
and that the cash balance to the credit of the park improvement fund was ..... $ 8,175 07

Respectfully,

HOWARD C. BECK,
Deputy Controller.

Financial Statement.

JULY 1, 1903 to June 30, 1904.

RECEIPTS.

Park and Boulevard Fund.

Appropriation, 1903		$209,363 00
Donation to Atkinson park..	$1,000 00	
From House of Correction fund.....	750 00	
Sale of bonds, new casino, Belle Isle.....	100,000 00	
Casino privilege, Belle Isle	5,000 00	
Boat privilege, Belle Isle	400 00	
Pony privilege, Belle Isle.....	600 00	

Casino privilege, Palmer park	$ 228 46	
Phæton receipts	12,404 77	
Bath house receipts	3,303 55	
Ferry licenses	600 00	
Sale of horses	490 00	
Soldiers' monument fund	100 00	
Forfeit on contract	205 00	
Sale of ice, Palmer park	30 43	
Sale of ice, Detroit Yacht Club	66 00	
Sale of ice, Detroit Boat Club	87 80	
Sidewalks, boulevard	64 45	
Auto receipts	9 52	
Landing permits;	70 00	
Detroit Boat Club lease	1 00	
Detroit Yacht Club lease	1 00	
Permits, water connections	51 25	
Unclaimed checks	44 85	
Sale of deer	30 00	
" hay	23 00	
" stone	37 79	
" mower	4 00	
" oil and coal	4 75	
Hauling men, etc	50 00	
Sale of old iron	27 63	
" badger	75	
" postals	25	
" elk skin	2 50	
" trees	2 00	
" wood	3 00	
" plants	10 12	
Encroaching on boulevard (lease)	1 00	$23,954 87
		$335,067 87
Cash balance on June 30, 1903		11,764 01
Total receipts		$346,831 88

Park and Boulevard Fund.

EXPENDITURES.

GENERAL MAINTENANCE.

Administration.

Salaries	$11,788 38	
Printing and stationery	816 20	
Office rent, etc.	1,180 87	$13,785 45

Engineering Department.

Salaries	$1,883 95	
Supplies	187 92	2,071 87

Telephones.

Rent, repairs, etc		306 87

Greenhouse Department.

Propagation	4,752 49	
Floral planting	1,530 11	
Stock	739 85	
Fuel	702 48	7,724 93

Tools.

Purchase	1,176 39	
Repairs	823 61	2,000 00

Roller.

Engineer	964 45	
Fuel and supplies	441 17	
Repairs	394 38	1,800 00

Crusher.

Labor	1,178 40	
Supplies	166 13	
Repairs	155 47	1,500 00

Barns and Horses.

Barns and horses, care of	$6,976 05		
Vehicles, repairs	1,402 67		
Shoeing	978 04		
Harness repairs	337 23		
Supplies	210 34		
Forage	5,447 87		
City barn, rent, etc	1,193 67		
" " forage	1,194 91		
" " shoeing	141 33		
" " supplies	56 81		
Palmer park forage	185 69	$18,124 61	

Band Concerts.

Concerts		5,369 11	

Nursery.

Labor	2,164 18		
Stock and supplies	414 07	2,578 25	

Fertilizer.

Purchase and gathering	250 00		
Total general maintenance,			$55,511 09

General Improvements.

Cobble	2,354 12	
Horses	1,730 00	
Harness	300 00	
Lines	57 00	
Wagons	295 00	
Addition to nursery greenhouse	251 00	
Automobile	872 00	
Total general improvements,		$5,859 12

BELLE ISLE MAINTENANCE.

Power Plant.		
Engineers and firemen	$3,834 71	
Fuel	2,756 30	
Supplies	168 63	$6,759 64
Aquarium.		
Wages	1,698 89	
Supplies	597 08	
Tanks, etc.	873 15	3,169 12
Horticultural Building.		
Wages	2,264 74	
Supplies	319 35	
Stock	415 91	3,000 00
Hickory Trees.		
Labor		409 59
General.		
General maintenance	23,116 44	
Flower beds	1,179 62	
Settees and swings	71 41	
Flag and staff	163 12	
Trees and shrubs	129 71	
Fuel	922 71	25,583 01
Buildings.		
Casino	706 98	
Skating pavilion	713 85	
Bath house	616 40	
Boat house	122 18	
Barn	487 45	
Greenhouse	606 33	
Inselruhe	213 35	
Ice house	269 08	
Buildings generally	95 76	
Furniture	237 87	4,069 25

Roads.			
Roads and walks	$1,973 39		
" sprinkling	299 20	$2,272 59	
Docks and Bridges.			
Dock repairs	276 79		
Bridge repairs	109 05	385 84	
Water System.			
Repairs, etc.	90 74		
Filling tanks	500 68	591 42	
Lakes and Canals.			
Cleaning		1,051 68	
Zoological Department.			
Care of Animals	1,352 92		
Feed	2,527 71		
Cages, repairs	163 65	4,044 28	
Closets and Cesspools.			
Care of	530 88		
Repairs	115 31		
Supplies	145 87	792 06	
Phaeton Service.			
Maintenance		6,553 46	
Bath House.			
Maintenance	1,762 49		
Suits, etc	566 55	2,329 04	
Patrolmen.			
Wages		980 28	
Ice.			
Filling ice houses		555 51	
Park Rest.			
Care of	443 07		
Fuel	196 59		
Supplies	134 10	773 76	
Total Belle Isle maintenance,			$63,320 53

BELLE ISLE IMPROVEMENTS.

Animal shelter	$4,733 00	
Road and walk construction	2,500 00	
Wagon shed	5,028 94	
Wolf enclosure	1,200 00	
Bridge No. 16	3,500 00	
" No. 13	5,500 00	
" No. 18	614 56	
Sprinkling system	500 00	
Drinking fountain	500 00	
Brown stone fountain	475 00	
Athletic field	500 00	
Animals	900 65	
Slag	250 00	
Picnic stands	150 00	
Sheet piling	448 44	
Aquarium grounds	426 88	
B. I. bridge embankments	98 50	
Forge	24 50	
Deer park fence	57 14	
New casino	736 17	
Total Belle Isle improvements,		$28,143 78

PALMER PARK MAINTENANCE.

Palmer Park.

General maintenance	$2,848 50		
Roads	171 64		
Lawns	475 57		
Bridges	477 62		
Forage	96 71		
Trees	41 12		
Flower beds	235 65		
Water system	10 41		
Shoeing	43 70		
Hay	102 74		
Ice cutting	65 82		
Buildings	16 80		
Fuel	331 53	$4,917 81	
Water rates		500 00	
Total Palmer park maintenance,			$5,417 81

PALMER PARK IMPROVEMENTS.

General improvements	$1,769 64		
Roads	50 27		
Trees	50 22	$1,870 13	
Woman's toilet		1,398 29	
Men's toilet		2,000 00	
Water system		170 90	
Sewer		566 61	
Ice house		450 00	
Total Palmer park improvements,			$6,455 93

CLARK PARK MAINTENANCE.

Clark Park.

General maintenance	$2,750 52	
Buildings	80 00	
Trees	48 20	
Ice	25 72	
Total Clark park maintenance,		$2,904 44

CLARK PARK IMPROVEMENTS.

General improvements	2,100 53	
Walks	401 76	
Back stops	450 00	
Total Clark park improvements,		$2,952 29

CITY PARKS MAINTENANCE.

Perrien—General	3 94		
Floral	89 51	93 45	
Grand Circus—General	113 40		
Floral	49 82		
Water	39 50		
Ice	16 90	219 62	
Cass—General		39 36	
Macomb		5 07	
Campau—General	42 02		
Floral	15 72	57 74	
Cadillac—General		89 44	
West "		18 79	
Clinton "		5 44	
Capitol "		1 53	
Washington "		137 24	
City Hall lawn—General	57 59		
Floral	175 94	233 53	
Elton—General		10 50	
Soldiers' monument		117 04	
General maintenance, parks	3,548 06		
Floral	760 53		
Trees	20 02		
Water system	142 64	4,471 25	
Care takers		5,702 88	
Total city parks maintenance			$11,202 88

CITY PARKS IMPROVEMENT.

Owen — General improvements	$1,352 95
Perrien " "	110 36
Grand Circus " "	562 54
Cass " "	260 12
Stanton " "	50 00
Macomb " "	69 24

Harmonie—General improvements	$ 50 00	
Campau " "	61 83	
Cadillac " "	100 00	
West " "	50 00	
Clinton " "	45 72	
Capitol " "	50 00	
Washington " "	300 00	
Recreation " "	17 10	
Medbury " "	300 00	
Voigt " "	1,000 00	
Second ave. " "	100 00	
Boston, east " "	306 29	
Op. H. lawn " "	50 00	
Parker ave. " "	200 00	
Atkinson " "	956 07	
Total city parks improvements		$5,992 22

GRAND BOULEVARD MAINTENANCE.

General maintenance	3,575 55		
Lawns	1,406 35		
Trees	748 28		
Flower beds	362 60		
Water system	328 46		
Roads	97 20		
Walks	4 00		
Road sprinkling	2,694 17	9,216 61	
Care takers		4,004 65	
Patrol		1,460 00	
Dequindre st. bridge repairs		697 01	
Total Grand boulevard maintenance,			$15,378 27

GRAND BOULEVARD IMPROVEMENTS.

Gates	200 00
Sprinkling system, Mack to Gratiot ave	500 00
" " Grand River to Eighteenth st.	500 00
Trees, at large	250 00
Fairmount park	750 00

Walk intersections	$ 500 00	
Road "	974 38	
Resurfacing	2,499 16	
Tool House	300 00	
Mack intersection	1,375 00	
Ash "	1,629 00	
Dix "	1,363 00	
Road construction	2,000 00	
Dock, Western boulevard	10,883 07	
Total Grand boulevard improvements		$23,723 61

LAFAYETTE BOULEVARD MAINTENANCE.

General maintenance	500 00	
Caretakers	1,993 12	
Total Lafayette boulevard maintenance		$2,493 12

TRANSFERRED.

By resolution of the common council March 1, 1904, page 183, record of the common council, there was transferred to the park improvement fund, to be used in completing the equipment of the aquarium $3,000 00

RECAPITULATION.

Park and Boulevard Fund.

	MAINTENANCE.	IMPROVEMENTS.
General maintenance and improvements	$55,511 09	$5,859 12
Belle Isle " " "	63,320 53	28,143 78
Palmer park " " "	5,417 81	6,455 93
Clark park " " "	2,904 44	2,952 29
City parks " " "	11,202 88	5,992 22
Grand boulevard " " "	15,378 27	23,723 61
Lafayette " " " "	2,493 12	
	$156,228 14	$73,126 95
Maintenance		156,228 14
Total expenditures		$229,355 09

Transferred to park improvement fund, resolution common council, March 1, 1904,		3,000 00
Cash balance, June 30, 1904		114,476 79
Grand total		$346,831 88

RECEIPTS—

Cash balance, June 30, 1903	11,764 01	
Appropriation	209,363 00	
Donation for Atkinson park	1,000 00	
From house of correction, Nov. 24, 1903	750 00	
Sale of bonds for new casino	100,000 00	
General receipts	$23,954 87	$346,831 88

Park Improvement Fund.

RECEIPTS—

Transferred from park and bouev'd fund	3,000 00	
From H. of C. fund, March 1, 1904	11,000 00	
Cash balance	37,626 99	
Total receipts, park imp'm't fund		$51,626 99

EXPENDITURES—

Superintendence	$240 00	
Heating and power plant	1,366 24	
Painting and glazing	3,727 50	
Tanks	10,690 25	
Pools, etc	2,010 38	
Mason work	3,000 00	
Plastering	436 90	
Marble and tile	4,090 07	
Architect	2,770 32	
Electric work	208 50	
Steel work	539 12	
Roofing	13 30	
Cut stone	92 68	
Carpenter work	429 00	
Plumbing	625 00	
Equipment	12,712 66	
Fireproofing	500 00	
Total expend't's park imp'm't fund		$43,451 92

RECAPITULATION.

Park Improvement Fund.

Receipts	14,000 00	
Cash balance, June 30, 1903	37,626 99	
Expenditures		43,451 92
Cash balance, June 30, 1904		8,175 07
	$51 626 99	$51,626 99

GRAND RECAPITULATION.

RECEIPTS—		
Park and boulevard fund balance June 30, 1903	11,764 01	
Park and boulevard fund receipts	335,067 87	
Park improvement fund balance June 30, 1903	37,626 99	
Park improvement fund receipts	14,000 00	$398,458 87
DISBURSEMENTS—		
Park and boulevard fund maintenance	156,228 14	
" " " " improvements	73,126 95	
" " " " transferred to park improvement fund		3,000 00
Park and bonlevard fund balance June 30, 1904		114,476 79
Park improvement fund, improvements	43,451 92	
" " " balance June 30, 1904		8,175 07
Total expenditures		272,807 01
		$398,458 87

Park and Boulevard System.

Bonds Issued and Estimates Asked and Allowed.

Total bonds issued for Belle Isle park	$1,015,000 00
" " " " City parks	81,000 00
" " " " Grand Boulevard	830,000 00
Total	$1,926,000 00

Estimates Under Acts of May 8th, 1899 and May 4, 1901.

	ASKED.	ALLOWED.
1889	$231,000 00	$101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428,661 00	173,502 00
1901	454,893 00	161,265 00
1902	272,169 00	198 913 00
1903	368,170 00	227,363 00
1904	486,517 00	240,841 00
	$4,186,230 00	$2,291,060 00

Miscellaneous Information to Answer the Many Inquiries Made.

City population, 339,590.

City acreage, 18,560.

Park and boulevard acreage, $1,193\frac{734}{1000}$

Parks and boulevard valuation, $10,378,900.00.

Belle Isle park is 2 miles long.

" " " has 5½ miles shore drive.

" " " has 14½ miles of driveway.

" " " has $5\frac{1}{10}$ miles gravel walks.

" " " flag staff is $146\frac{86}{100}$ feet in height.

" " " flag is 30 x 50 feet.

Belle Isle bridge is ½ mile long less 8 feet.

" " zoo grounds contain 15 acres.

Park and boulevard system has 15½ miles of gravel walk.

" " " " has $38\frac{1}{10}$ miles of roadway.

Macadam road,	Belle Isle	.....	221,173	square	yards.
" "	Palmer park	.....	17,566	"	"
" "	Clark "	.....	11,366	"	"
" "	Grand Boulevard	.....	352,007	"	"
Brick "	" "	.....	3,494	"	"
Asphalt "	Lafayette "	.....	27,401	"	"
Cedar block "	" "	.....	20,232	"	"

AREA OF LAKES.

Lake Takoma,	Belle Isle park,	15.30	acres.
" Muskoday,	" " "	34.23	"
" Okonoka,	" " "	22.56	"
" Higinio, " Frances,	Palmer park,	4.58	"
Clark park lake.....		.66	"

PRINCIPAL IMPROVEMENTS.

Lakes.

Lake Takoma, Belle Isle park, 1887	$21,981 75	
" " " " " deepened, 1892	5,444 55	
" " " " " " 1900	7,019 43	
" " " " " " 1901	4,000 00	$38,445 73
Lake Okonoka, Belle Isle park, 1888-9		58,658 73
" Muskaday " " " 1893		45,055 99
Lily pond, " " " 1890		2,990 15

Canals.

Loop Canal, Belle Isle park, 1883	$11,182 00	
" " " " " deepened, 1901	2,500 00	
" " " " " " 1902	2,500 00	18,682 00
Nashua " " " " 1890		37,741 97

Water Mains.

Water mains, Belle Isle park, 1894-5-6	$29,623 52

Docks.

Sheltered ferry dock, Belle Isle park, 1894	12,520 65

Brigdes.

Stone bridge No. 1—Over north inlet to Loop canal, on Pleasure place, Belle Isle 1894	$5,438 25
Steel bridge No. 2—Over Loop canal, near Muir fountain, Belle Isle, 1892	5,962 53
Stone bridge No. 3—Over Marsh Run, on Muse road, Belle Isle, 1894	8,205 80
Wooden bridge No. 4—Over Lily pond, built in 1901	206 00
Stone bridge No. 5—(foot); over Marsh Run, Belle Isle, 1894	1,400 00
Steel bridge No. 6—Over Loop canal, on Central avenue, Belle Isle, 1892	14,301 43
Stone bridge No. 7—Over Loop canal south of bridge No. 6, Belle Isle, 1892-3	5,852 72

Bridges—*Continued.*

Stone bridge No. 8—Over outlet at S. W. corner of Belle Isle, 1894	5,462 34
Stone bridge No. 9—(foot); over outlet to Lake Takoma, Belle Isle, 1894-9	1,732 61
Stone bridge No. 10—Over canal at head of Lake Takoma, built in 1900-1-2	6,962 52
Brick and stone bridge, No. 11—Over inlet to Lake Takoma, built in 1901-2	3,600 00
Stone bridge No. 12—Over south inlet to Nashua canal, built in 1900-1 2	3,577 79
Stone bridge No. 13—Over Nashua canal east of Belle Isle barns, built in 1903	5,500 00
Steel bridge No. 14—Over Nashua canal, at athletic shelter, Belle Isle, 1899-1900	4,538 35
Wooden bridge No. 15—Over Nashua canal on Hermit's Pass, built many years ago, now worthless	———
Stone bridge No. 16—Over inlet to Nashua canal on Woodside drive, built in 1903	3,500 00
Wooden bridge No 17—Over S. E. inlet to Lake Okonoka on Lakeside drive, abandoned in 1900 and inlet filled up	———
Stone and steel bridge No. 18—Over east inlet to Lake Okonoka on Lakeside drive, built in 1902-3	5,500 00
Stone bridge No. 19—Over south inlet to Lake Muskoday, Belle Isle, 1894	4 578 47
Stone bridge No. 20—Over north inlet to Lake Muskoday, Belle Isle, 1894	3 999 62
Stone bridge No. 21—Over outlet to Lake Muskoday, 1894	3,559 77
Wooden bridge No. 22—Was built many years ago and is now worthless	———
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9	44,786 61

Buildings.

Aquarium and horticultural building and equipment, 1900-1-2-3	155 392 08
Animal Shelter, 1903	4,733 00
Athletic pavilion, Belle Isle, 1899	12,828 72
Casino, Belle Isle, 1886-7-8	19,066 45
Boathouse, Belle Isle, 1887	5.587 28
Engine house, pavilion and earth closets, Belle Isle, 1887, engine house abandoned 1896.	5,966 84
Greenhouse, Belle Isle, 1899, 1900-01-02	17,694 45
Ice house, 1900-1	2,433 22
Implement and wagon shed, 1902-3	9,840 33
Music pavilion, Belle Isle, 1902	2,500 00
Bathhouse, Belle Isle, 1894.	16,179 88
Horse shelter (old market bldg.), Belle Isle, 1894 .	3,110 06
Skating pavilion, Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895	12,053 21
Women's toilet (brick) Belle Isle, 1895	1,085 49
" " (stone) " " 1896	2,208 56
Wolf inclosure, 1903	1,200 00
Picnic pavilion, near Yacht Club, Belle Isle, 1890..	1,635 72
Police station (park board's share) Belle Isle. 1892..	2,000 00
Women's toilet, Clark park 1893.	4,205 59
Men's " " " 1899-1900	2.295 00
Shelter pavilion, " " 1895.	1,675 00
Picnic pavillion, Palmer Park 1895	1,167 53
Casino, Palmer park, 1896 1899	11,799 73
Women's toilet, Palmer park, 1902-3	1,999 98
Men's toilet, Palmer park	2,000 00
Log waiting room, Palmer park, 1900	1,212 07

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1.	8,821 82
Fountain, Capitol park, 1896	2 351 83
" Stanton park, 1896	670 00
Horse drinking troughs, Grand Boulevard, 1896...	1,606 38
Dock, foot of Western Grand Boulevard, 1903	10,883 07

Park and Boulevard System.

NAMES.	LOCATIONS.	ACREAGE
Adelaide Campau	Campau, Mullet and Clinton sts	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13 470
Belle Isle	Island in the Detroit river	707.000
Boston parkway	Boston boulevard, east and west	5 734
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Rowland sts	.510
Cass	Second ave., Ledyard and Bagg sts	4.966
Chicago parkway	Chicago boulevard, east and west	5.008
City Hall	Woodward ave., Fort and Michigan	.550
Clark	Dix, Scotten, Lafayette and Clark sts	31.601
Clinton	St. Antoine, Mullet and Raynor sts	1.068
Crawford	Fifth and West High sts	.746
Elton	Fifth and Orchard sts	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts	.448
Macomb	17th, 18th and Rose sts	.557
Medbury	Medbury ave., John R. to Rivard sts	3.440
Opera House	Woodward and Monroe aves	.174
Owen	Jefferson ave. and river	6.990
Palmer	Woodward ave	140.410
Parker parkway	Parker ave. north of Jefferson ave	.373
Perrien	Chene, Grandy, Hancock and Warren aves	5.180
Recreation	Brush, Brady to Alexandrine ave	1.290
Second avenue parkway	Second ave. bet. Colburn pl. & R. R.	1 110
Stanton	17th, 18th and Porter sts	.695
Voigt	Edison and Longfellow aves	6.795
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
Lafayette boulevard		22.770
	Total 28 parks and the boulevard	1,193 734
Grand boulevard mileage		11.62
Lafayette " "		2.36
	Total boulevard mileage	13.98

RAYNOR & TAYLOR,
DETROIT.

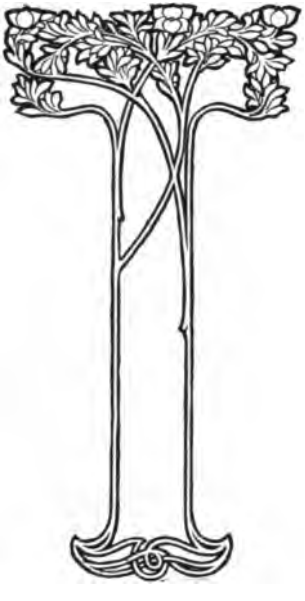
Parks and Boulevards

SIXTEENTH ANNUAL REPORT OF

The Department of Parks and Boulevards

CITY OF DETROIT, MICHIGAN

FROM JULY 1, 1904, TO JUNE 30, 1905, INCLUSIVE



R. E. BOLGER, Commissioner
M. P. HURLBUT, Secretary
H. W. BUSCH, General Supt.
F. O. RAY, Engineer

BELLE ISLE CASINO

Park Commissioners

1871-1905

Park Commissioners Under the Act of 1871:

G. V. N. Lothrop, Robert P. Toms, A. Smith Bagg,
John J. Bagley, Merrill I. Mills, Wm. A. Butler,
Chas. I. Walker, Chas. C. Trowbridge.

Park Commissioners Appointed in 1879 by Mayor Langdon:

Theo. Chapoton, W. K. Muir, John Pridgeon, Jr.,
August Goebel, E. F. Conely, W. B. Moran.

Board of Belle Isle Park Commissioners Organized Sept. 6, 1881:

NAMES.	Appointed.	Expiration of Term.	REMARKS.
Merrill I. Mills	Aug. 30, 1881	Aug. 31, 1882	
Aug. Marxhausen	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
Wm. A. Moore	Aug. 30, 1881	Aug. 31, 1884	Re-appointed.
Jas. McMillan	Aug. 30, 1881	Aug. 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
Wm. B. Moran	Sept. 1, 1882	Aug. 31, 1886	
Aug. Marxhausen	Sept. 1, 1883	Aug. 31, 1887	
Dexter M. Ferry	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term Jas. McMillan.
Wm. A. Moore	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
Jos. A. Marsh	Jan. 22, 1886	Aug. 31, 1889	
Elliott T. Slocum	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
FRED L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888. F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug. 1, 1888	Aug. 31, 1890	Filling unexpired term of F. L. Seitz, resigned.
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept. 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, abrogating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS and WM. B. MORAN, who were succeeded by the following:

Commissioners of Parks and Boulevards:

GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891.
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTONE, JR.	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21, 1889	May 31, 1893	
FRED A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May 3, 1892	May 31, 1894	Resigned Nov. 15, 1892. James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED GUENTHER	Aug. 1892	May 31, 1895	
WM. LIVINGSTONE, JR.	May 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug. Marxhausen appointed to fill unexpired term.
AUG. MARXHAUSEN	Nov. 28, 1893	May 31, 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingstone, Jr.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5, 1894	May 31, 1898	Resigned March 1, 1896 A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1896	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
JAS. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VANLEYEN	June 6, 1898	May 31, 1902	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28, 1898	May 31, 1901	Resigned April 11, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904	

Under the Act of May 4, 1901, aborgating the Commissioners of Parks and Boulevards, The office of the Commissioner of Parks and Boulevards was created.

Commissioner of Parks and Boulevards

NAME.	Appointed.	Term.
R. E. BOLGER	May 4, 1901	June 1, 1901 to May 31, 1905.
R. E. BOLGER	May 31, 1905	June 1, 1905, to May 31, 1909.

LAKE FRANCES—PALMER PARK

Department of Parks and Boulevards

To the Honorable, the Common Council:

GENTLEMEN:—The commissioner of parks and boulevards, as per the requirement of the city charter, begs to submit the following report for the fiscal year beginning July 1, 1904, and ending June 30, 1905, both days inclusive, together with the secretary's detailed financial statement of the receipts and disbursements of the funds, showing the expenditures for maintenance and improvement of the park and boulevard system.

General Superintendent:

General Superintendent Healy on April 30, 1905, resigned, and on May 1, 1905, Capt. H. W. Busch was appointed as his successor.

City Storage Yard:

A storage yard within the half mile circle yearly becomes more of a necessity and some provision for one should be made at an early date.

Engineering Department:

This department, under engineer, F. O. Ray, prepared all plans and specifications for work performed and estimates for future work, and has had charge, under the general superintendent, of the water and drainage system.

The Nursery:

This department, under the judicious management of forester, H. J. Hunter, shows that the nursery is a most profitable adjunct.

There were taken from the nursery and planted on the various parks and on the boulevard 7,230 trees and shrubs, which if purchased would have cost $2,835.70. In addition, there were propagated and planted on the system 24,114 bedding plants valued at $868.36.

Also there were planted in the nursery 43,600 cuttings, budded stock, herbaceous plants and seedlings valued at $520.

The cost of maintaining this department was but $2,425.97. The inventory shows there are now on hand:

Stock		Value.
9,156	trees	$ 3,246 00
39,984	shrubs	9,996 00
121	evergreens	293 00
599	roses	119 80
1,840	herbaceous plants	184 00
	Added to the nursery this spring:	
30,000	cuttings	300 00
600	budded stock	30 00
3,000	herbaceous plants	90 00
10,000	seedlings	100 00
95,300		$14,358 80

Barns, Horses and Vehicles:

This department, which also includes the phaeton and automobile service, in charge of overseer, Ed. M. Greiner, is one of the most important of the entire system, to insure successful and economical maintenance.

July 1, 1904, the department owned 56 horses; during the year 15 were purchased, 10 sold and 2 died, leaving 59 horses in the service June 30, 1905.

The daily average of horses was 61; 16,390 days' work were performed, each horse averaging 10 hours per day; therefore 20,488 eight-hour days' work was done by them.

The cost of maintenance, exclusive of repairs to vehicles, was $17,590.58. These figures demonstrate the fact that it is to the city's interest to own rather than hire horses, as it would have cost $20,488 to have hired an equal number of horses.

Phaetons and Automobiles:

In connection with this service, an automobile privilege is being operated by the Huber Automobile Co., for which they pay this department five per cent. of the gross receipts, together with one-quarter of the expense of the wages of the cashiers.

There are now in service thirteen phaetons, ten of which are very old and must soon be replaced, and either phaetons or some other conveyances provided if the increasing demand is to be cared for, and at this time the question arises, would it not be wise and feasible to establish an automobile service owned by the city? But owing to the fact that year by year a larger number of people visit Belle Isle park, the only practical solution of the bridge traffic is a municipal street car line from Jefferson avenue to the opposite end of Belle Isle bridge.

335,409 people patronized the bridge phaetons; 13,029 the round-the-park phaetons, the cash receipts for which were $11,202.95.

The bridge automobiles carried 39,926 passengers, while those running around the park carried 19,510 people. The department received for this privilege $464.80.

GREENHOUSES—BELLE ISLE

Greenhouse Department:

Two ranges were added to the greenhouse plant in 1903 and 1904, and with the present appropriation it is hoped to add two more ranges the coming year. The completion of the greenhouse plant is a most urgent necessity, and it is strongly recommended that the granting of an appropriation which will enable its entire completion be delayed no longer than the coming fiscal year. The present popularity of the conservatory should be maintained, and to do so more greenhouse space is imperative.

Carpentry Department:

This department in its importance must in no way be lost sight of as the repair and painting of the buildings, bridges, vehicles, swings, settees, tables, rustic work, etc., rests with it, and to its efficiency is due credit for their good appearance.

Band Concerts:

The music furnished in the different parks is no longer considered a luxury, but is looked upon by the people as a necessity, and on a summer evening the canal on Belle Isle park, which the band pavilion spans, might be likened to the canals of Venice, the exception being that canoes instead of gondolas are used, while the shores of the canal within hearing of the music are a surging mass of humanity.

The band, hired for the season, consisted of 25 musicians and leader, and gives thirteen concerts each week, Sunday being the only day on which two concerts are not given. The concerts commenced July 4 and the last one was on Labor Day, September 5, and were given on Belle Isle, Palmer, Clark and Cass parks.

Children's Day:

Of all the public occasions in which the children participate, this day is looked forward to with the most pleasurable anticipation; it has become a permanent holiday and is enjoyed by old as well as young. The fancy dancing by the little girls and boys, parade of little ones, vaudeville features,

BELLE ISLE BARN

music, singing, etc., attracted a throng of people that could hardly be estimated. Children's day this year was celebrated June 9, and there were no accidents to mar its pleasure.

Aquarium:

The aquarium was completed and opened to the public July 24, 1904, the formal opening day being August 18 following. The exhibition of fish, which consists of many rare specimens and is very complete, was collected by director, R. J. Conway,

who is recognized as one of the leading aquarists of the country.

The popularity of the aquarium has far exceeded the expectations of the most sanguine, there having viewed the exhibit during the year ending June 30, 1905, 686,905 people, a daily average since the opening day of 1,999, the banner day being May 30, 1905, when 35,363 persons passed through the grotto.

The aquarium contains 44 exhibition or wall tanks and three floor pools. The building is 260 feet long by 72 feet wide and occupies 15,500 square feet of space.

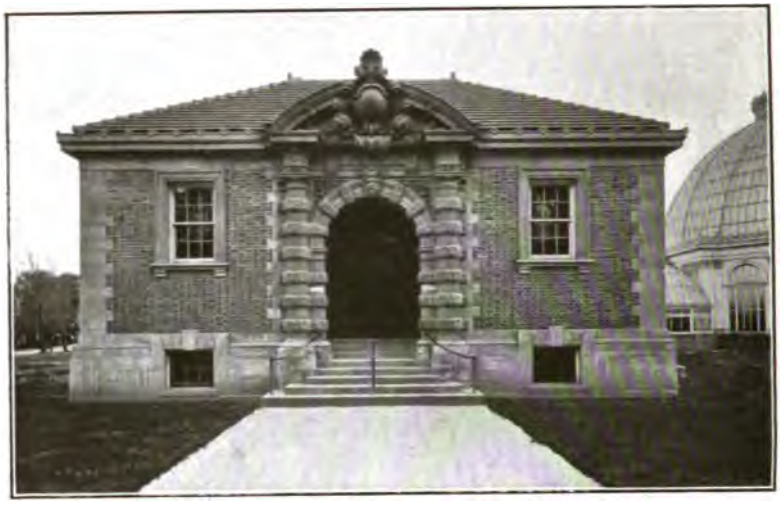
The exhibition hall has 4,256 square feet of floor space.

Attendants' passage has 5,196 square feet of floor space.

Conservatory:

The conservatory was finished, exhibition arranged and opened with the aquarium in July, 1904, under the supervision of the horticulturist, R. W. Unger, and the pleasing effects which have resulted from the judicious selection and arrangement of specimens with the comparatively limited appropriation with which to do, are witnessed by thousands of enchanted visitors, while gratifying in the extreme are their continual expressions of delight. No less than half a million people during the past year have passed through the conservatory.

The conservatory is 272 feet long, with an extreme width of 128 feet, covering 14,000 square feet. In the roof and sides of the building there are 25,500 square feet of glass. The center circular palm house has 4,070 square feet of floor space, is 72 feet in diameter, with a dome 80 feet high; in this house all the tall specimens of the palm and tropical plants are exhibited. Cacti and many rare plants and vines



NORTH FRONT AQUARIUM

COMMISSIONER'S OFFICE—AQUARIUM

are exhibited in the north show house, which contains 1,670 square feet of floor space.

The south show house has 2,280 square feet of floor space, with a pool, where aquatic and other rare and peculiar plants are exhibited.

The fernery forms the north end of the building ,and has 1,720 square feet of floor space. The floor is depressed, that the exhibition can be better viewed by the visitor.

The orchid house is at the extreme southern end of the building, containing 450 square feet, but divided into two rooms, that the different varieties of orchids may be provided with the required heat for their thrifty growth and health.

The floral display house, containing 3,210 square feet of floor space, is located east of the center circular palm house, where at all seasons of the year there are upon exhibition flowering plants.

In the first five or permanent show houses all specimens are labeled with the botanical and common names, the country to which the plants are native, as well as the family to which they belong.

Heating and Power Plant:

Much might be said of the importance of this plant, for upon it depends the successful operation of both aquarium and conservatory, for it furnishes to both their heat, power and ventilation, also heat for the greenhouses and other buildings. The plant is operated continuously, three shifts of employes being required, each performing an eight-hour day's work.

The machinery required in the operation of the aquarium and for heating the various buildings is as follows:

Engine room, has 2,500 square feet of floor space.
Boiler room, has 1,900 square feet of floor space.
Coal bunkers have capacity of 200 tons.

Boiler room contains—

2 one hundred h. p. hot water boilers,
1 one hundred h. p. steam boiler,
1 one hundred h. p. convertible boiler,
1 ten h. p. blower,
4 automatic Jones stokers,

DIRECTOR'S OFFICE—AQUARIUM

Engine room contains—

2 twenty-five h. p. circulating hot water pumps for heating buildings, capacity 108,000 gallons per hour,
1 twelve h. p. engine for ventilating system.
1 sixty h. p. condenser,
1 oil separator,
1 air pump, capacity 720 cubic feet per hour at 25 lbs. pressure.
1 four hundred gallon per hour pump for ice drinking water,
1 six thousand gallon per hour pump for refrigerated water,

1 ten thousand gallon per hour pump for fresh water,
1 five thousand gallon (nickel) pump for sea water,
1 ten ton refrigerating plant (battery of two five tons),
1 three thousand six hundred gallon per hour power filter (alum) for refrigerating water,
1 four thousand two hundred gallon per hour power filter (alum) for fresh water,
1 four thousand gallon per hour gravity filter for sea water,

Circulating pipes for tanks and pools—
1,000 ft. gal. iron pipe for refrigerated water system,
2,300 ft. gal. iron pipe for fresh water system,
1,625 ft. lead lined iron pipe for sea water system,
Total capacity of pipes, 990 gallons of water.

Circulating pipes for heating—
29,562 ft. of black pipe for heating system,
227 ft. of galvanized pipe for heating system,
Exhibition or wall tanks made of steel and hard enamel lined inside.
4 tanks 7 ft. 4 in. long, 3 ft. 7 in. high, 6 ft. top, and 4 ft. bottom wide, 1½ in. glass, capacity, 960 gal. each.
16 tanks 6 ft. 3 in. long, 3 ft. 7 in. high, 4 ft. top 2 ft. bottom wide, 1 in. glass, capacity 490 gal. each.
4 tanks 5 ft. 6 in. long, 3 ft. 7 in. high, 4 ft. top, 2 ft. bottom wide, 1 in. glass, capacity 432 gal. each.
4 tanks 4 ft. 6 in. long, 3 ft. 7 in. high, 4 ft. top, 2 ft. bottom wide, 1 in. glass, capacity 354 gal. each.
16 tanks 2 ft. 9 in. long, 3 ft. 7 in. high, 4 ft. top, 2 ft. bottom wide, 1 in. glass, capacity 216 gal. each.
Total capacity 18,280 gal.
Reserve or hospital tanks, made of 2 in. cypress.
12 hospital tanks 6 ft. long, 3 ft. high, 2 ft. 2 in. wide, capacity 225 gal. each.
Supply tanks in third story made of 2 in. cypress, giving 5 lb. pressure to supply lines to exhibition tanks.
1 supply tank, 6 ft. high 7 ft. diameter for refrigerated water, capacity 1,720 gal.
1 supply tank 6 ft. high 7 ft. diameter for fresh water, capacity 1,720 gal.
1 supply tank 6 ft. high 7 ft. diameter for sea water, capacity 1,720 gal..
Exhibition pools in floor.
Center pool eliptical 23 ft. long, 14 ft. wide, 5 ft. deep, capacity 8,530 gal.
East pool, oblong, 18 ft. long, 11 ft. wide, 3½ ft. deep, capacity 5,000 gal.
South pool, oblong, 17½ ft. long, 9 ft. wide, 3½ ft. deep, capacity 3,780 gal.
Sea water under ground storage cisterns outside of building.
2 circular cement cisterns 22 ft. diameter, 5 ft. deep, capacity 12,000 gal. each.
Pump pits under floor in engine room.

GROTTO—AQUARIUM

EXHIBITION TANKS—AQUARIUM

1 circular cement cistern 7 ft. diameter by 5 ft. deep, for refrigerated water, capacity 1,440 gal.
1 circular cement cistern 7 ft. diameter, 5 ft. deep, for fresh water, capacity 1,440 gal.
1 circular cement cistern 7 ft. diameter by 5 ft. deep, for sea water, capacity 1,440 gal.

Total capacity of tanks, cisterns, pipes, etc., 72,760 gallons.

Total gallons of water required to commence the operation of the aquarium is 72,760 gallons, of which 57,000 gallons is kept in constant motion, the water in the main tanks changing many times daily.

Thirty thousand gallons of the 72,760 gallons is sea water brought from Wood Holes, Mass., the water at that point on the Atlantic coast being especially pure and dense. One-half of the sea water is constantly resting in underground cisterns. This process becomes absolutely necessary as the vivifying power of the sun's rays starts into life countless millions of infusonial spores, which gives to the water a milky appearance; water in this condition is technically said to be "pea soupy," but a rest of the water of from three to five days in total darkness destroys this microscopic growth, and the water regains its usual clearness. The addition of fresh water to supply that lost by evaporation sufficient to keep the specific gravity at about 22 degrees is essential, and after the water is filtered and aerated to supply oxygen, it is again ready for use.

All the water, both sea and fresh, is aerated by first forcing it against a wide perforated cone, as it drops into the supply tank and again by forcing air into the exhibition tanks through basswood plugs placed at the end of a gutta percha pipe leading to the bottom of the tank, where the visitor sees the air rising to the surface in minute silvery bubbles. Should the aerating from any cause cease for a time, the fish in the tanks would suffocate.

BOILER ROOM—AQUARIUM

REFRIGERATER PLANT—AQUARIUM

The fishes per square foot in an aquarium greatly outnumber those to be found in natural bodies of water, where the current provide the necessary oxygen.

It is reported that in several of the European aquaria artificial sea water has been used, but not with much success, the formula being as follows:

Common salt	81 parts.
Epson salts	7 parts.
Chloride of potassium	2 parts.
Chioride of magnesium	10 parts.

The analysis of sea water being as follows:

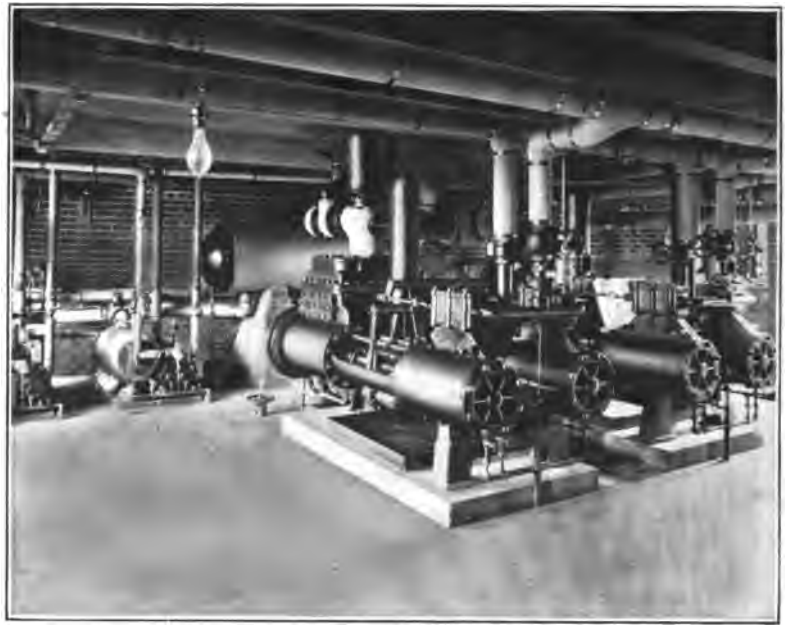
Water	964,744 parts.
Common salt or chloride of sodium	27,059 parts.
Epson salts or sulphate of magnesium	2,295 parts.
Gypsum or sulphate of lime	1,407 parts.
Chloride of magnesium	3,666 parts.
Chloride of potassium	.765 parts.
Bromide of magnesium	.029 parts.
Carbonate of lime	.033 parts.
Unaccounted for	.002 parts.

The fresh water specimens are taken from the inland lakes and tributary rivers and streams. The sea water fishes are gathered by experts along the Atlantic coast at points from Maine to Bermuda. Many of the Bermuda fishes are especially beautiful. They are transported in cans and cars built for the purpose.

Zoological Department:

Animals to be seen at the Zoo:—

5 Alligators	Alligator mississippienis.
5 Buffaloes	Bison.
2 Bears, polar	Thalarctos maritimus.
1 Bear, grizzly	Ursus horribilis.
2 Bears, black	Ursus americanus.
1 Badger	Taxidea americana.
1 Duck, wood	Aix sponsa.
2 Ducks, Mandrin	Aix galericulata.



HOT WATER CIRCULATING PUMP—AQUARIUM

FILLERS AND PUMP—AQUARIUM

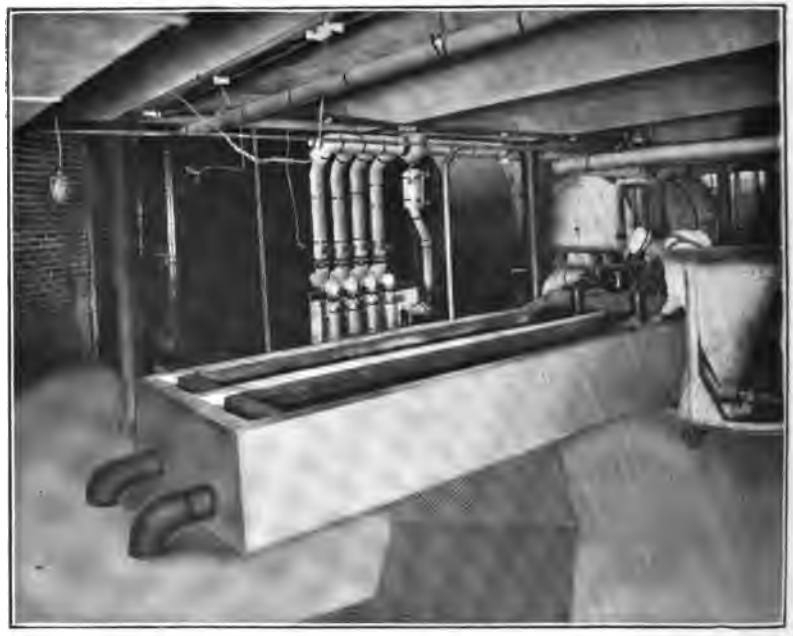
10	Deer, Virginia	Cariacus virginianus.
2	Deer, red	Cervus elaphus.
5	Deer, brown fallow	Cervus dama.
3	Deer, white fallow	Cervus dama.
1	Deer, mule	Odocoileus hemionus.
1	" Sambur	Cervus aristotelis.
2	" axis	Cervus axis.
9	Elk	Cervus canadensis.
1	Eagle, bald	Haliaetus lencocephalus.
1	" golden	Aquila chrysaetos.
2	Fox, red	Vulpes fulvus.
6	Geese, wild	Branta canadensis.
2	Guinea pigs	Caviidoe cutleri.
2	Heron Great Blue	Ardea herodias.
2	Hawk, red-tailed	Buteo borealis.
1	Lynx, Canada	Lynx canadensis.
1	" bay	Lynx rufus.
3	Ostriches	Struthio Australis.
1	Otter	Lutra canadensis.
6	Owls, horned	Bubo virginianus.
2	Owls, snowy	Nyctea Nyctea.
12	Prairie dogs	Cynomys ludovicianus.
1	Pheasant, Amherst	Thaumalea Amherstiae.
4	Pheasants, golden	Thaumalea Picta.
6	" ringnecked	Phasianus torquatus.
4	" silver	Euplocomus nycthemerus.
1	Peafowl	Pavo cristata.
6	Raccoons	Procyon lotor.
9	Rabbits, English	Lepus cuniculus.
1	Sea lion	Zalophus californianus.
6	Swans, white	Cygnuo olor.
2	" black	Chenopis atratus.
2	Wolves, gray	Canis occidentalis.
2	" timber	Canis occidentalis.
1	Woodchuck	Arctomys monax.
1	Zebu	Bos indicus.

Also a large number of quail, pigeons and squirrels at large on the park.

Bath House:

The accommodations of the bath house have long been insufficient to meet the demand of the public and the erection of a larger building with increased facilities should be no

ATTENDANTS' PASSAGE—AQUARIUM



SEA WATER FILTER—AQUARIUM

longer delayed. During the past season many people have been turned away disappointed from the bath house. Other than the present location should be selected for the site of the new building, where the beach is larger and the bottom smoother.

During the season the following number of bathers have been accommodated: Women, 6,122; men and boys, 45,173; total, 51,295; the total receipts being $3,550.45; the number of bathers exceeding those of the year previous by 148.

Belle Isle Improvements

Public Comfort Station:

At the northeast corner of Central and Inselruhe avenues, just north of the bear pit, a women's comfort station has been built of stone. A most needed improvement, the contract for which was $2,500.00.

Deer Shelter:

The shelter for the several species of the deer family has been completed and being arranged with radiating paddocks, greatly facilitating the exhibition of the animals.

Swan Lake:

The bottom of this lake, which is located in the zoo grounds was concreted, and in the summertime is the home of the sea lions.

Ice Water Drinking Fountains:

One ice water drinking fountain has been erected on Casino Way, south of the band pavilion; built of broken faced cobblestone.

Athletic Field:

This playground is yearly becoming more popular; it now has seven baseball diamonds, which are in great demand.

For stormy days, to close the openings of the athletic shelter, iron drop-curtains should be provided.

Roadways:

The work of rebuilding, widening and resurfacing 20,333 square yards of roadway has been accomplished. Many of the roads have been widened, which was made necessary by the increased use of automobiles.

Water System:

Five hundred and twenty feet of surface sprinkling pipe has been added to the water system.

Palmer Park:

No improvement of importance was made in this rural park, although many of a minor nature for its ornamentation and for the comfort and pleasure of the people have been made. Palmer park is fast becoming one of the most popular parks of the system.

Clark Park:

The improvements in this park were executed in accordance with the appropriation. The athletic field in the addition to this park is greatly appreciated by the people in that section of the city.

City Parks:

The improvements in the small city parks have been of minor importance excepting the erection in West Grand Circus park of a five-jet automatic geyser display fountain.

Grand Boulevard:

The western roadway between Fort and River streets was constructed, lawns on the west side graded and the property

owners have constructed sidewalks. This improvement is highly valued by the residents of that locality. The dock at this point when finished will afford the ferry company a safe landing and undoubtedly it will be used by the Belle Isle ferry boats.

Sidewalk intersections were laid as far as the money allowed would permit.

Lafayette Boulevard:

The roadway from the Western Grand Boulevard to Scotten avenue was graded and opened to the public.

Maintenance:

The protection and maintenance of the property in charge of this department, covering some 1,200 acres, consisting of twenty-eight parks (varying in size from one-half to 700 acres) and the Grand and Lafayette boulevards, which combined are twelve miles in length, require an endless amount of care and labor, which have been executed as well as existing conditions would permit. Every effort was made to keep the system in a state of neatness and tidiness at all times for the use of the public.

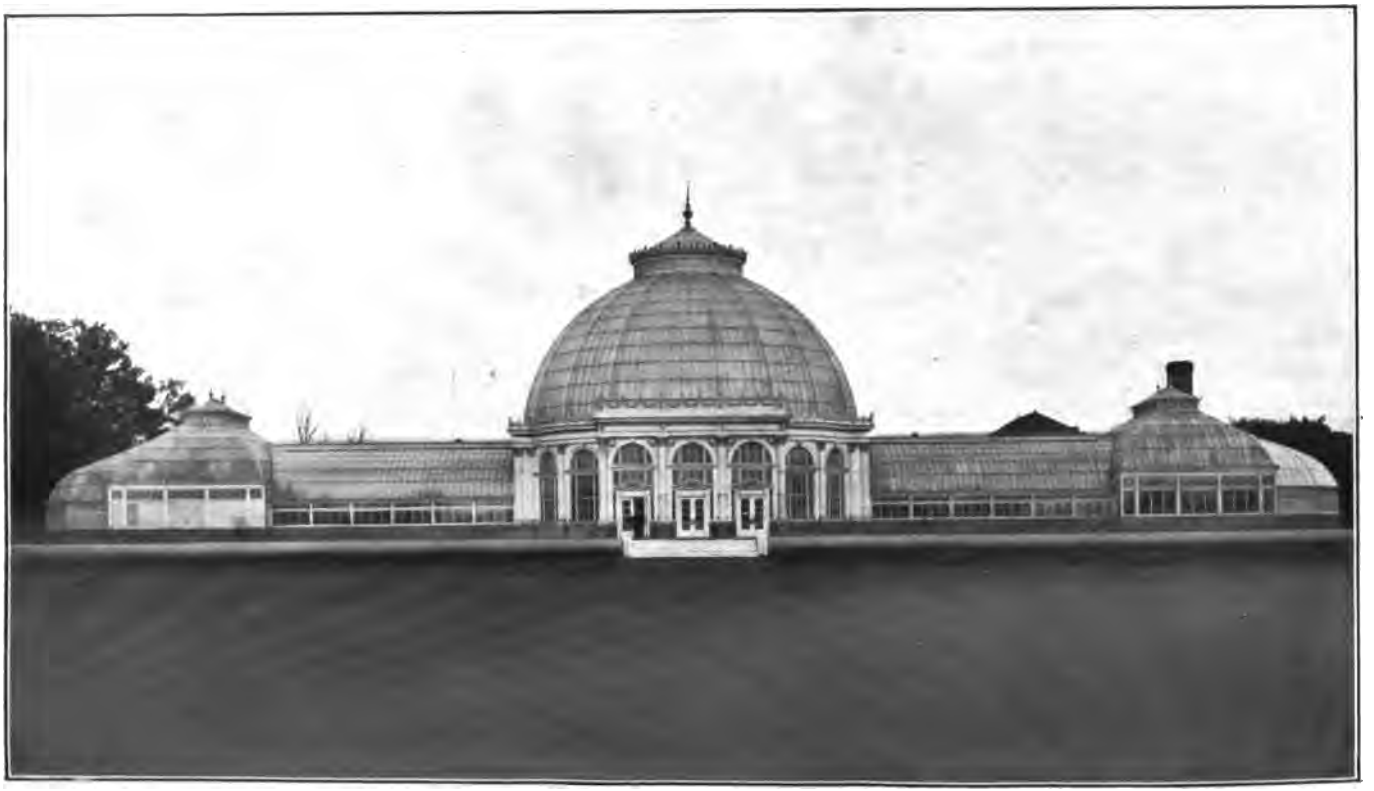
For the future of our rapidly growing commonwealth, a plan for a future park system, which of necessity must be considerably larger than at present, should be provided, which will comprehend the coming requirements of the people, that the future purchase of land for park and boulevard purposes may be governed thereby, thus making in the end a complete and symmetrical whole.

Respectfully submitted,

M. P. HURLBUT, *Secretary.*

R. E. BOLGER, *Commissioner.*

June 30, 1905.



CONSERVATORY—BELLE ISLE PARK

Secretary's Report

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—Herewith I hand you the annual financial statement of this department.

The cash balances of the funds in the hands of the city treasurer for the fiscal year ending June 30, 1905, are as follows:

Park and boulevard fund balance.....$132,197.61
Park improvement fund balance..... 1,314.44

The balances are certified to by the city controller as per his statement hereto attached.

In addition to the financial report there is an itemized list of the principal improvements, their cost, bonds issued, estimates asked for and allowed, together with the yearly expenditures of money received from all sources since the first park was established in 1854.

Respectfully submitted,

M. P. HURLBUT,

June 30, 1905. *Secretary.*

Office of the Controller,
Detroit, July 18, 1905.

M. P. Hurlbut, Sec'y Department of Parks and Boulevards, Detroit, Mich.:

DEAR SIR:—I hereby certify that the cash balance to the credit of the park and boulevard fund at the close of business June 30, 1905, was $132,197.61, and that the cash balance to the credit of the park and boulevard improvement fund was $1,314.44.

Respectfully yours,

HOWARD C. BECK,
Deputy Controller.

HORTICULTURIST'S OFFICE

ARISTOLOCHIA GIGAS—GOOSE OR PELICAN FLOWER
CONSERVATORY—BELLE ISLE

Financial Statement

Receipts

Cash balance July 1, 1904		$114,476 79
Appropriation, 1904, received	$242,841 00	
Loan from city	2,000 00	
Casino privilege	4,640 00	
Boat privilege	750 00	
Pony privilege	600 00	
Skating Pavilion privilege	480 00	
Casino, Palmer park privilege	376 05	
Phaeton receipts	11,202 95	
Bath house receipts	3,550 45	
Auto receipts	464 80	
Ferries license	600 00	
Lease, Detroit Yacht Club	1 00	
" Detroit Boat Club	1 00	
Sale of ice, Palmer park	36 49	
" " Detroit Boat Club	35 10	
" " Detroit Yacht Club	29 00	
Landings	110 00	
Permits	93 75	
Telephone receipts	4 51	
Unclaimed checks	15 56	
Encroachments on boulevard	1 00	
Soldiers' monument fund	100 00	
Sidewalks, boulevard collections	138 00	
Sale of elk	100 00	
" horses	650 00	
" houses	451 00	
" iron	201 60	
" blue prints	5 75	
" wagon	25 00	
" crusher dies and wheels	18 00	
" swan and geese	40 00	
" zebu hide	3 06	
" feed, etc., horse	80 00	
" mower	2 50	
" fence	1 00	
" ladles	60	
" oats	10	269,649 27
Total receipts		$384,126 06

Expenditures—General Maintenance

Administration.		
Salaries	$11,749 92	
Printing and stationery	976 98	
Office rent, etc	1,081 40	$13,808 30
Engineering Department.		
Salaries	2,085 90	
Supplies	183 44	2.269 34
Telephones.		
Rent, repairs, etc.		361 97
Greenhouse Department.		
Propagation	6,798 67	
Floral planting	82 25	
Stock	918 97	
Fuel	252 39	8,052 28
Tools.		
Purchase	1,083 51	
Repairs	1,218 58	2,302 09
Rollers.		
Engineer	1,209 41	
Fuel and supplies	300 11	
Repairs	413 34	1,922 86
Crusher.		
Labor	937 22	
Supplies	377 49	
Repairs	203 29	1,518 00
Barns and Horses.		
Care of Barns and horses	6,984 00	
Vehicle repairs	394 13	
Shoeing	831 28	
Harness repairs	374 81	
Supplies	253 47	
Forage	6,677 76	
City barn rent, etc	1,074 77	
City barn forage	1,057 56	
City barn shoeing	195 95	
Auto repairs	694 60	
Palmer Park forage	140 98	18,679 31

Band Concerts.			
Concerts		5,199 45	
Nursery.			
Labor	2,361 87		
Stock and supplies	64 10	2,425 97	
Fertilizer.			
Purchase and hauling		409 45	
Total general maintenance.			$56,949 02
General Improvements.			
Cobble		$2,296 16	
Horses		2,572 50	
Harness		340 43	
Wagons		491 50	
Ice wagon		325 00	
New greenhouse		6,840 60	
Road roller		800 00	
Total general improvement			$13,666 19

Belle Isle Maintenance

Power Plant.			
Engineers and firemen	$4,779 32		
Fuel	2,243 91		
Repairs	11 70		
Supplies	163 93	7,198 86	
Aquarium.			
Wages	5,677 82		
Feed	599 86		
Supplies	939 89		
Live stock	1,543 75		
Improvements and repairs	1,378 99	10,140 31	
Horticultural Building.			
Wages	2,629 78		
Plants	37 34		
Supplies	19 20		
General maintenance	59 22	2,745 54	

ORCHID HOUSE—CONSERVATORY, BELLE ISLE

SOUTH HOUSE—CONSERVATORY

Maintenance Belle Isle.		
General maintenance	23,488 33	
Flower beds	1,216 53	
Trees	66 60	
Ice cutting	523 13	
Fuel	1,431 65	26,726 24
Buildings.		
Casino	311 81	
Bath house	283 77	
Skating pavilion	434 89	
Barn	98 22	
Green house	482 29	
Inselruhe	90 75	
Ice house	96 49	
Buildings	249 45	
Furniture	230 78	2,278 45
Roads.		
Roads and walks		532 00
Docks and Bridges.		
Bridge repairs	274 10	
Dock repairs	392 16	666 26
Water System.		
Repairs, etc.	90 03	
Filling tanks	311 07	401 10
Lakes and Canals.		
Cleaning		928 03
Zoological Department.		
Care of animals	1,403 38	
Feed	2,327 11	
Cage repairs	273 75	4,004 24
Closets and Cesspools.		
Care of	1,089 02	
Repairs	5 40	
Supplies	58 79	1,153 21
Phaeton Service.		
Maintenance		6,852 34

INSELROHE—BELLE ISLE

Bath House.			
Maintenance	2,350 53		
Suits, etc	1,040 84	3,391 37	
Patrolmen.			
Wages		1,109 54	
Park Restaurant.			
Care of	602 27		
Fuel and supplies	241 09	843 36	
Nashua Canal.			
Cleaning		77 75	
Hickory Trees.			
Care of		368 34	
Total Belle Isle Maintenance			$69,416 94

Belle Isle Improvements

Road and walk construction	$4,888 93
Animal shelter	6,651 78
Woman's toilet	2,500 00
Wolf enclosure	590 00
Animals	275 06
Zoo lake	1,200 00
Storage cellar	100 00
Drinking fountains	474 21
Tetters and swings	347 17
Rustic	150 00
Athletic field	500 00
Slag	500 00
Rip rap	45 50
Aquarium grounds	2,073 12
Gates shut off	110 29
Iron sewer pipe	200 00
Grind stone	35 00
Saw gauge	50 00
Drag cut-off saw	175 00
Sewer Central avenue	663 84
Stock horticultural building	992 34
Park rest	500 00
Wagon shed	54 85

ICE WATER DRINKING FOUNTAIN—BELLE ISLE PARK

Sheet piling		51 56	
Banks Belle Isle bridge		19 25	
Forge		6 37	
Total Belle Isle improvements			$23,154 27

Palmer Park Maintenance

General maintenance	$5,759 77		
Road maintenance	147 10		
Closets	17 25		
Lawns	141 67		
Bridges	5 60		
Shoeing	36 15		
Trees	45 50		
Floral	211 54		
Water system	3 72		
Casino repairs	1,095 47		
Ice cutting	50 78		
Buildings	48 91		
Fuel	352 67		
Total Palmer maintenance.			$7,916 13

Palmer Park Improvements

General	$1,441 96		
Bridges	57 40	1,499 36	
Tetters		200 00	
Water system		39 43	
Sewer		167 55	
Total Palmer improvement			$1,906 34

Clark Park Maintenance

General maintenance	$2,612 12		
Trees	25 14		
Total Clark maintenance...		$2,637 26	

Clark Park Improvements

General	$1,667 09		
Trees	300 38		
Water system	140 05		
Total Clark improvements.		$2,107 52	

WOMAN'S CONVENIENCE STATION—BELLE ISLE

City Parks Maintenance

Perrien, general	$ 89 59		
Grand Circus, general	421 59		
Cass, general	259 66		
Stanton, general	16 30		
Harmonie, general	19 25		
Campau, general	7 38		
Cadillac, general	38 47		
West, general	5 25		
Clinton, general	3 00		
Capitol, general	20 75		
Washington, general	264 24		
Recreation, general	5 69		
Medbury, general	3 50		
City Hall lawn, general	214 09		
Crawford, general	83 45		
Second Avenue, general	5 25		
Soldiers' Monument, general	169 45		
General	3,422 41		
Water system, general	62 82	5,112 14	
Caretakers		6,125 42	
Total City Parks maintenance			$11,237 56

City Parks Improvements

Owen.			
General improvement		$1,467 93	
Perrien.			
General improvement		53 20	
Grand Circus.			
General improvement	$ 300 00		
Fountain	1,238 36		
		1,538 36	
Cass.			
General improvement		102 09	
Stanton.			
General improvement		28 24	
Macomb.			
General improvement		17 60	

Harmonie.

General improvement 50 00

Campau.

General improvement 26 47

Cadillac.

General improvement 69 12

West.

General improvement 9 48

Clinton.

General improvement 12 90

Capitol.

General improvement 60 48

Washington.

General improvement 300 00

Recreation.

General improvement 6 10

Medbury.

General improvement 101 88

Voigt.

General improvement 491 57

City Hall Lawn.

General improvement 100 00

Elton.

General improvement 200 00

Crawford.

General improvement 200 00

Second Avenue.

General improvement 200 00

Boston—East.

General improvement 20 45

Opera House Lawn.			
General improvement	21 75		
Atkinson.			
General improvement	914 57		
Total city parks improvements		$5,992 19	

Grand Boulevard Maintenance

General maintenance	$4,895 17		
Lawns	221 46		
Trees	633 27		
Flowers	719 28		
Water system, repairs	526 16		
Road maintenance	184 99		
Walk repairs	3 82		
Road sprinkling	3,112 99	10,297 14	
Caretakers.			
Wages		3,906 55	
Patrol.			
Wages		1,436 00	
Dequindre Bridge.			
Repairs		5,616 58	
Total Grand Boulevard maintenance			$21,256 27

Grand Boulevard Improvements

Gates shut off	$ 181 78	
Sprinkling system, Mack Ave.	400 00	
Sprinkling system, Gr. River	375 00	
Tree Planting	250 00	
Fairmount park	403 62	
Walk intersections	1,365 06	
Road intersection	1,025 62	
Resurfacing	2,500 84	
Road, Fort to River	9,936 79	
Catch basins	150 00	
Dock	1,243 12	
Mack intersection	106 00	
Total Grand Boulevard Improvements		$17,937 83

ANIMAL SHELTER—BELLE ISLE ZOO

Lafayette Boulevard Maintenance

Maintenance	$ 273 63		
Care takers	1,960 60		
Patrol	718 00		
Roadway repairs	13.126 59	16,078 82	
Total Lafayette Boulevard maintenance			$16,078 82

Lafayette Boulevard Improvements

Road from Grd Boulevard to to Scotten	$ 1,539 56		
Walk intersection	132 55		
Total Lafayette Boulevard Imments		$1,672 11	

Recapitulation

Park and Boulevard Fund.

	Maintenance.	Improvements.
General maintenance and Improvements	$ 56,949 02	$ 13,666 19
Belle Isle " "	69,416 94	23,154 27
Palmer " "	7,916 13	1,906 34
Clark " "	2,637 26	2,107 52
City Parks " "	11.237 56	5,992 19
Grand Boul. " "	21,256 27	17,937 83
Lafayette " "	16,078 82	1,672 11
	$185,492 00	$66,436 45
Maintenance		$185.492 00
Total Expenditure		$251 938 45
Cash Balance June 30, 1905		132,197 61
Grand Total		$384,126 06

Park Improvement Fund

Cash Balance June 30, 1904			$ 8,175 07
Expenditures.			
Equipment Aquarium and Conservatory	$ 3,814 38		
Fire proof, aquarium and conservatory	294 10		
Plastering, aquarium and conservatory	195 50		
Marble and tile, aquarium and and conservatory	199 70		
Plumbing, aquarium and conservatory	125 00		
Mason, aquarium and conservatory	82 76		
Carpenter, aquarium and conservatory	41 50		
Painting, aquarium and conservatory	480 25		
Tanks, aquarium and conservatory	827 44		
Architect, aquarium and conservatory	800 00	6,860 63	
Cash Balance June 30, 1905		$1,314 44	
			$8,175 07

Park and Boulevard System

Bonds Issued and Estimates Asked and Allowed

Total bonds issued for Belle Isle park	$1,015,000 00
" " " " City parks	81,000 00
" " " " Grand Boulevard	1,080,000 00
Total	$2,176,000 00

Estimates Under Acts of May 8, 1899, and May 4, 1901

	ASKED	ALLOWED
1889	$231,000 00	$101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428,661 00	173,502 00
1901	454,893 00	161,265 00
1902	272,169 00	198,913 00
1903	368,170 00	227,363 00
1904	486,517 00	240,841 00
1905	566,776 00	241,516 00
	$4,753,006 00	$2,532,576 00

Principal Improvements

Lakes.

Lake Takoma, Belle Isle park, 1887		$21,981 75	
" " " " " deepened, 1892		5,444 55	
" " " " " " 1900		7,019 43	
" " " " " " 1901		4,000 00	$38,445 73
Lake Okonoka, Belle Isle park, 1888-9			58,658 73
" Muskoday " " " 1893			45,055 99
Lily pond, " " " 1890			2,990 15
Zoo lake (concreting) 1904			1,200 00

EAST SHORE BELLE ISLE

N. E. SHORE BELLE ISLE

Canals.

Loop Canal, Belle Isle park, 1883	$11,182 00	
" " " " " deepened, 1901	2,500 00	
" " " " " " 1902	2,500 00	18,682 00
Nashua " " " " 1890		37,741 97

Water Mains.

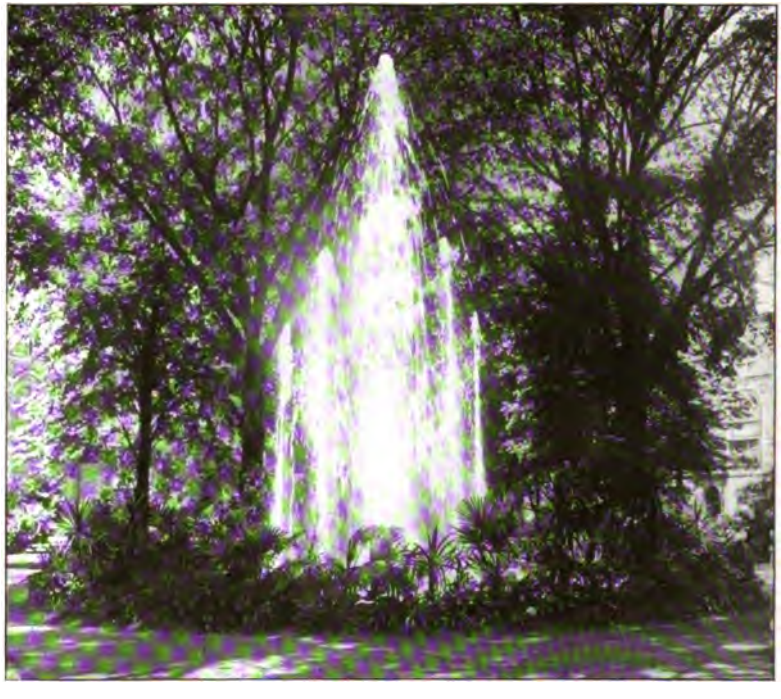
Water mains, Belle Isle park, 1894-5-6	$29,623 52

Docks.

Sheltered ferry dock, Belle Isle park, 1894	12,520 65

Bridges.

Stone bridge No. 1—Over north inlet to Loop canal, on Pleasure place, Belle Isle, 1894	$5,438 25
Steel bridge No. 2—Over Loop canal, near Muir fountain, Belle Isle, 1892	5,962 53
Stone bridge No. 3—Over Marsh Run, on Muse road, Belle Isle, 1894	8,205 80
Wooden bridge No. 4—Over Lily pond, built in 1901	206 00
Stone bridge No. 5—(foot); over Marsh Run, Belle Isle, 1894	1,400 00
Steel bridge No. 6—Over Loop canal, on Central avenue, Belle Isle, 1892	14,301 43
Stone bridge No. 7—Over Loop canal south of bridge No. 6, Belle Isle, 1892-3	5,852 72
Stone bridge No. 8—Over outlet at S. W. corner of Belle Isle, 1894	5,462 34
Stone bridge No. 9—(foot); over outlet to Lake Takoma, Belle Isle, 1894-9	1,732 61
Stone bridge No. 10—Over canal at head of Lake Takoma, built in 1900-1-2	6,962 52
Brick and stone bridge, No. 11—Over inlet to Lake Takoma, built in 1901-2	3,600 00
Stone bridge No. 12—Over south inlet to Nashua canal, built in 1900-1-2	3,577 79
Stone bridge No. 13—Over Nashua canal east of Belle Isle barns, built in 1903	5,500 00
Steel bridge No. 14—Over Nashua canal, at athletic shelter, Belle Isle, 1899-1900	4,538 35



GUYSER FOUNTAIN—W. GRAND CIRCUS PARK

Wooden bridge No. 15—Over Nashua canal on Hermit's Pass, built many years ago, now worthless	———
Stone bridge No. 16—Over inlet to Nashua canal on Woodside drive, built in 1903	3,500 00
Wooden bridge No. 17—Over S. E. inlet to Lake Okonoka on Lakeside drive, abandoned in 1900 and inlet filled up	———
Stone and steel bridge No. 18—Over east inlet to Lake Okonoka on Lakeside drive, built in 1902-3	5,500 00
Stone bridge No. 19—Over south inlet to Lake Muskoday, Belle Isle, 1894	4,578 47
Stone bridge No. 20—Over north inlet to Lake Muskoday, Belle Isle, 1894	3,999 62
Stone bridge No. 21—Over outlet to Lake Muskoday, 1894	3,559 77
Wooden bridge No. 22—Was built many years ago and is now worthless	———
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9	44,786 61

Buildings.

Aquarium and horticultural building and equipment, 1900-1-2-3-4	162,252 71
Animal shelter, 1903-4	11,384 78
Athletic pavilion, Belle Isle, 1899	12,828 72
Casino, Belle Isle, 1886-7-8	19,066 45
Boathouse, Belle Isle, 1887	5,587 28
Engine house, pavilion and earth closets, Belle Isle, 1887, engine house abandoned 1896	5,966 84
Greenhouse, Belle Isle, 1899, 1900-1-2-4	17,794 45
Ice house, 1900-1	2,433 22
Implement and wagon shed, 1902-3-4	9,895 18
Music pavilion, Belle Isle, 1902	2,500 00
Bathhouse, Belle Isle, 1894	16,179 88
Horse shelter (old market bldg.), Belle Isle, 1894	3,110 06
Skating pavilion, Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895	12,053 21
Women's toilet (brick) Belle Isle, 1895	1,085 49
Women's toilet (stone) Belle Isle, 1896	2,208 56
Women's toilet (brick) Belle Isle, 1904	2,500 00
Wolf inclosure, 1903-4	1,790 00

Picnic pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Police station (park board's share) Belle Isle 1892	2,000 00
Women's toilet, Clark park, 1893	4,205 59
Men's toilet, Clark park, 1899-1900	2,295 00
Shelter pavilion, Clark park, 1895	1,675 00
Picnic pavilion, Palmer park, 1895	1,167 53
Casino, Palmer park, 1896-1899	11,799 73
Women's toilet, Palmer park, 1902-3	1,999 98
Men't toilet, Palmer park	2,000 00
Log waiting room, Palmer park, 1900	1,212 07

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1	8,821 82
Fountain, Capitol park, 1896	2,351 83
Fountain, Stanton park, 1896	670 00
Horse drinking troughs, Grand Boulevard, 1896	1,606 38
Dock, foot of Western Grand Boulevard, 1903.	10,883 07

Miscellaneous Information to Answer the Many Inquiries Made

City population, 339,590.

City acreage, 18,560.

Park and boulevard acreage, 1,193 734-1000.

Parks and boulevard valuation, $10,378,900.00.

Belle Isle park is 2 miles long.

" " " has 5½ miles shore drive.

" " " has 14½ miles of driveway.

" " " has 5 1-10 miles gravel walks.

" " " flag staff is 146 86-100 feet in height.

" " " flag is 30 x 50 feet.

Belle Isle bridge is ½ mile long less 8 feet.

" " zoo grounds contain 15 acres.

Park and boulevard system has 15½ miles of gravel walk.

" " " " has 38 1-10 miles of roadway.

Macadam road,	Belle Isle	221,173	square	yards.
" "	Palmer park	17,566	"	"
" "	Clark "	11,366	"	"
" "	Grand Boulevard	352,007	"	"
Brick "	" "	3,494	"	"
Asphalt "	Lafayette "	27,401	"	"
Cedar block "	" "	20,232	"	"

Area of Lakes

Lake Takoma,	Belle Isle park,	15.30	acres.
" Muskoday,	" " "	34.23	"
" Okonoka,	" " "	22.56	"
" Higinio,	Palmer park,	4.58	"
" Frances,			
Clark park lake		.66	"

Park and Boulevard System

NAMES.	LOCATIONS.	ACREAGE.
Adelaide Campau	Campau, Mullett and Clinton sts	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13.470
Belle Isle	Island in the Detroit river	707.000
Boston parkway	Boston boulevard, east and west	5.734
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Rowland sts	.510
Cass	Second ave., Ledyard and Bagg sts	4.966
Chicago parkway	Chicago boulevard, east and west	5.008
City Hall	Woodward ave., Fort and Michigan	.550
Clark	Dix, Scotten, Lafayette and Clark aves	31.601
Clinton	St. Antoine, Mullett and Raynor sts	1.068
Crawford	Fifth and West High sts	.746
Elton	Fifth and Orchard sts	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts	.448
Macomb	17th, 18th and Rose sts	.557
Medbury	Medbury ave., John R. to Rivard sts	3.440
Opera House	Woodward and Monroe aves	.174
Owen	Jefferson ave. and river	6.990
Palmer	Woodward ave.	140.410
Parker parkway	Parker ave. north of Jefferson ave	.373
Perrien	Chene, Grandy, Hancock and Warren aves	5.180
Recreation	Brush, Brady to Alexandrine ave	1.290
Second avenue parkway	Second ave. bet. Colburn pl. & R. R	1.110
Stanton	17th, 18th and Porter sts	.695
Voigt	Edison and Longfellow aves	6.795
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
Lafayette boulevard		22.770
	Total 28 parks and the boulevard	1,193.734
Grand boulevard mileage		11.62
Lafayette boulevard mileage		2.36
	Total boulevard mileage	13.98

COMPILED FROM CITY RECORD vehicles and general improvements.

Year	MA				TOTALS.		GRAND TOTAL.
	GENERAL Inc. Gen. Imp.	BELLE ISLE	PALMER PARK	TE V'D	MAINTENANCE.	IMPROVEMENTS.	
1854					$1,869 75		$1,869 75
1855					167 98		167 98
1856					1,163 36		1,163 36
1857					934 29		934 29
1858					268 45		268 45
1859					181 46		181 46
1860					185 74		185 74
2861					1,915 14		1,915 14
1862					2,862 65		2,862 65
1863					1,981 15		1,981 15
1864					2,391 69		2,391 69
1865					1,324 58		1,324 58
1866					2,686 53		2,686 53
1867					1,945 00		1,945 00
1868					1,433 36		1,433 12
1869					1,344 98		1,344 98
1870					2,351 93		2,351 93
1871					4,333 36		4,333 36
1872					3,345 99		3,345 99
1873					2,111 38		2,111 38
1874					3,509 83		3,509 83
1875					3,368 21		3,368 21
1876					6,024 08		6,024 08
1877					2,666 24		2,666 24
1878					2,180 04		2,180 04
1879		$1,415 50			1,415 50	$200,000 00	201,415 50
1880					1,750 04	215 23	1,965 27
1881		900 43			2,513 19	15 82	2,529 01
1882	$2,410 98	1,948 62			6,548 71	12,109 17	18,657 88
1883	3,060 55	18,043 30			22,710 43	17,265 43	39,975 86
1884	2,906 83	13,519 69			19,037 95	17,116 00	36,153 95
1885	2,094 70	3,875 54			8,133 74	26,433 49	34,567 23
1886	3,374 76	13,917 61			19,517 33	28,173 69	47,691 02
1887	3,431 11	45,981 99			51,640 85	84,633 83	136,274 68
1888	7,105 67	21,000 34			30,943 93	59,915 55	90,859 48
1889	8,501 98	21,487 55			37,295 18	60,986 01	98,281 19
1890	10,860 90	25,646 86			49,221 86	169,192 03	218,413 89
1891	10,256 04	42 993 96			79,856 43	228,951 80	308,808 23
1892	14,899 96	43,798 60			84,011 64	413,744 74	497,756 38
1893	31,374 27	43,593 02			86,923 35	298,982 69	385,906 04
1894	30,889 92	31,079 12	$ 393 1		82,605 74	218,394 17	300,999 91
1895	29,384 79	32 769 67	1,066 7		80,297 66	89,437 05	169,734 71
1896	36,502 16	48,222 16	3,163 1		112,708 31	108,049 98	220,758 29
1897	28,587 98	42 477 04	2,612 0		94,191 68	49,734 73	143,926 41
1898	27,142 25	37,500 33	4,008 8		91,899 72	46,070 67	137,970 39
1899	44,924 17	36,737 22	4 325 8		104,106 34	60,005 50	164,111 84
1900	54,663 59	35,350 87	5,001 8		116,126 63	75,936 63	192,063 26
1901	65,401 04	39,375 20	4,665 3		134,510 77	333,628 44	468,139 21
1902	59,920 81	52,840 21	5,455 2		146,011 18	119,421 33	265,432 51
1903	61,370 21	68 320 53	5,417 8		162,087 26	110,719 75	272,807 01
1904	70,815 21	69,416 94	7.916 1	2 11	199,158 19	59,630 89	258,789 08
	$699 528 88	$787,212 30	$44,020 9	2 11	$1,877,770 54	$2,888,764 62	$4,766,535 16

On account of change in fiscal year the item in 1878 is for 17 months and in 1896 it is for 18 months: $8,416.67, commissioner's salary in 1900-01 from contingent fund.

NAMES.

Adelaide Camp

Atkinson—34th

Belle Isle—Isl

Boston parkw

Cadillac—Cadi

Capitol—Grisw

Cass—Second

Chicago parkw

City Hall—W

Clark—Dix, S

Clinton—St. A

Crawford—Fif

Elton—Fifth a

Grand Circus-

Harmonie—Ra

Macomb—17th

Medbury—Me

Opera House-

Owen—Jeffers

Palmer—Woo

Parker parkw

Perrien—Chen

Recreation—B

Second avenue

Stanton—17th,

Voigt—Edison

West—State a

Washington—

Grand bouleva

Lafayette boul

Tot

Grand bouleva

Lafayette boulevard mileage..... 13.98

Total boulevard mileage.....

THE FRANKLIN PRESS
DETROIT

SEVENTEENTH ANNUAL REPORT of THE DEPARTMENT of PARKS AND BOULEVARDS of the CITY of DETROIT in the YEAR ONE THOUSAND NINE HUNDRED AND SIX

SEVENTEENTH ANNUAL REPORT

OF

The Department of Parks and Boulevards

City of Detroit, Michigan

July 1, 1905, to June 30, 1906, inclusive

PHILIP BREITMEYER,
Commissioner

M. P. HURLBUT,
Secretary

H. W. BUSCH,
General Supt.

W. B. MAURICE,
Engineer

THE RICHMOND & BRENNAN CO., DETROIT.

OLD WELL—PALMER PARK

Park Commissioners

1871-1906

Park Commissioners Under the Act of 1871:

G. V. N. Lothrop, Robert P. Toms, A. Smith Bagg,
John J. Bagley, Merrill I. Mills, Wm. A. Butler,
Chas. I. Walker, Chas. C. Trowbridge.

Park Commissioners Appointed in 1879 by Mayor Langdon:

Theo. Chapoton, W. K. Muir, John Pridgeon, Jr.,
August Goebel, E. F. Conely, W. B. Moran.

Board of Belle Isle Park Commissioners Organized Sept. 6, 1881:

NAMES.	Appointed.	Expiration of Term.	REMARKS.
Merrill I. Mills	Aug. 30, 1881	Aug. 31, 1882	
Aug. Marxhausen	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
Wm. A. Moore	Aug. 30, 1881	Aug. 31, 1884	Re-appointed.
Jas. McMillan	Aug. 30, 1881	Aug. 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
Wm. B. Moran	Sept. 1, 1882	Aug. 31, 1886	
Aug. Marxhausen	Sept. 1, 1883	Aug. 31, 1887	
Dexter M. Ferry	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term Jas. McMillan.
Wm. A. Moore	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
Jos. A. Marsh	Jan. 22, 1886	Aug. 31, 1889	
Elliott T. Slocum	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
FRED L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888. F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug. 1, 1888	Aug. 31, 1900	Filling unexpired term of F. L. Seitz, resigned.
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept. 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, abrogating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS and WM. B. MORAN, who were succeeded by the following:

Commissioners of Parks and Boulevards:

GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891.
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTONE, JR.	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21, 1889	May 31, 1893	
FRED A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May 3, 1892	May 31, 1894	Resigned Nov. 15, 1892, James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED GUENTHER	Aug. 1892	May 31, 1895	
WM. LIVINGSTONE, JR.	May 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug. Marxhausen appointed to fill unexpired term.
AUG. MARXHAUSEN	Nov. 28, 1893	May 31, 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingstone, Jr.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5, 1894	May 31, 1898	Resigned March 1, 1896. A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1896	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
JAS. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VANLEYEN	June 6, 1898	May 31, 1902	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28, 1898	May 31, 1902	Resigned April 1, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term of A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904	

Under the Act of May 4, 1901, abrogating the Commissioners of Parks and Boulevards, the office of the Commissioner of Parks and Boulevards was created.

Commissioner of Parks and Boulevards.

NAMES.	Appointed.	Expiration of Term.	REMARKS.
R. E. BOLGER	May 4, 1901	May 31, 1905	Re-appointed.
R. E. BOLGER	May 31, 1905	May 31, 1909	Dismissed April 9, 1906.
PHILIP BREITMEYER	Apr. 10, 1906	May 31 1909	To fill unexpired term of R. E. Bolger.

WEEKLY SESSION OF HEADS OF DEPARTMENTS

Department of Parks and Boulevards

To the Honorable, the Common Council:

GENTLEMEN :—Section 13 of Act 257 by the legislature of the State of Michigan, amending parts of chapter 19 of the charter and laws of 1893, approved May 4, 1901, relative to the department of parks and boulevards in the city of Detroit, requires the commissioner to submit annually a report of his acts, in compliance with which I have the honor to herewith submit the seventeenth annual report, in which will be found a detailed statement by the secretary of all the receipts and disbursements for the fiscal year beginning July 1, 1905, and ending June 30, 1906, both days inclusive.

Commissioner:

The personnel of the department was changed by action of the common council, who preferred charges, as recorded in the Journal of the Common Council, page 86, for 1905, against the then Commissioner R. E. Bolger, and by vote on April 9, 1906, J. C. C., page 395, he was removed from office.

Hon. Geo. P. Codd, Mayor, on April 10, 1906, advised your honorable body that he had appointed Philip Breitmeyer commissioner of this department to fill the unexpired term ending May 31, 1909.

Acquisitions:

Hon. Jas. E. Scripps donated to the city of Detroit lots 1 to 15, both inclusive, in block 1 of Avery & Murphy's sub. of out lot 97, Woodbridge farm, and Geo. G. Booth donated lot 37

SUMMER DAY—BELLE ISLE

and the south 10 feet of lot 36 of the same sub. for park purposes; and to increase the area of the so-called Scripps park, the city purchased at a cost of $7,800, lots 16, 17, 18, 19, 20, 21, and 22, of the above sub., to be paid from the city contingent fund. The property lies north of Grand River ave., and between Trumbull and Commonwealth avenues.

There was also acquired by purchase a strip of land on the north side of Lafayette Boulevard, 34.45 feet wide by 200 feet in length, between Hubbard and Scotten avenues, to straighten the north line of Lafayette Boulevard, for which was paid $2,158.50 from the contingent fund of the city.

City Storage Yard:

Each year the necessity of the storage yard and a city barn owned by this department becomes more apparent. The rent now paid would pay the interest on a sufficient fund to purchase the required property and erect a barn and store house.

It is strongly recommended that some action be taken to the end that the city purchase the necessary property and erect a barn sufficient in size to accommodate the wants of this department.

Nursery Department:

The nursery has been most successful, as the following figures will show:

30,654 shrubs 3 and 4 years old	$6,130 80
10,752 shrubs 2 years old	1,075 20
9,500 trees	4,750 00
8,500 herbaceous plants	255 00
34,100 cuttings 1 year old	1,364 00
5,400 seedlings	27 50
	$13,602 50

The above figures showed the number and value of plants remaining in the nursery at the close of the season's planting.

GRAND BOULEVARD

Barn Department:

There was in possession of the department on July 1, 1905, fifty-nine horses; thirteen were purchased, one acquired by trade, eight were sold, one died, one traded, leaving on July 1, 1906, sixty-three horses on hand.

The work of this department yearly increases, and to economically execute it the department should own not less than eighty-five horses.

Phaeton Service:

The phaeton service as usual was unable to accommodate the public. There were carried across the bridge 311,079 passengers, and 14,242 around the park, or a total of 325,321 people, the receipts being $10,409.40.

Automobile Service:

This privilege is operated by the Huber Automobile Co., for which the department received during the fiscal year $548.89, being five per cent. of the gross receipts for fares received by the company. The autos carried 63,995 passengers across the bridge, and 32,134 around the park, or a total of 96,129 people.

The problem of transportation to and from Belle Isle park across the bridge and around the park is yet unsolved. After close study and careful observation, there seems but one solution of the bridge traffic, and that could only be made possible by the erection of a new bridge having a much larger capacity than the present one, with an elevated electric road overhead, owned and operated by the department. Were a system like this in operation, it is believed that it would be possible to carry passengers across the bridge for one cent each.

Conservatory:

The conservatory is most popular, as the many thousands of people who daily visit it testify.

Many rare plants are added each year.

When the greenhouse plant is complete a continual show of flowering plants in the show house will be made possible.

CLARK PARK LAKE

Greenhouses:

The new greenhouse plant is yet incomplete, there being several ranges yet required.

The old houses are in a deplorable condition and require many repairs each year. It is now very questionable whether the old boilers will last the coming winter, and still more questionable whether the old decayed frame houses will not collapse.

If flower beds are to be furnished on the system as in the past, the new ranges will of necessity have to be built. It is hoped an appropriation will be allowed to complete the plant in another fiscal year.

Aquarium:

The popularity of the aquarium yearly increases. The record shows that during the past year, ending June 30, 1906, 878,218 people have visited it.

Power Plant:

The power plant, situated in the south end of the aquarium building, should be seen by all visitors to Belle Isle park, as its operation is most interesting and an attraction which would be enjoyed by those, at least, who admire machinery. The plant has demonstrated its economy in the heating of the aquarium, conservatory and greenhouses.

Carpentry Department:

The efficiency of no other department is better shown than in this one, in its work of keeping the system in a neat and tidy condition.

Band Concerts:

The band for the season consisted of twenty-seven musicians, including the leader. There were given one concert on Sundays and two on each week day, or thirteen concerts each week, commencing July 4 and ending September 9.

WITHERAL WOODS—PALMER PARK

PALMER PARK—LIGHTHOUSE AND LOG CABIN

This form of entertainment for the people seems to be a popular and pleasing one, although with a larger appropriation, the number of musicians might be increased, and would add greatly to its popularity.

Children's Day:

The exercises were to have been held Friday, June 8, but owing to the rainfall on that day they were postponed until Saturday, June 16, which day was not altogether favorable. The sky looked threatening in the morning and a slight sprinkle of rain was felt during the exercises, yet there were present many thousands of joyous, rollicking children who cared but little for the weather so long as they had a good time, and they had it.

Zoological Department:

An effort is made to add to this department some hardy, hay-eating animals each year, and there are now on exhibition at Belle Isle park:

6 Buffaloes	Bison.
2 Bears, polar	Thalarctos maritimus.
1 Bear, grizzly	Ursus horribilis.
2 Bears, black	Ursus americanus.
1 Badger	Taxidea americana.
14 Deer, Virginia	Cariacus virginianus.
3 Deer, red	Cervus elaphus.
4 Deer, brown fallow	Cervus dama.
5 Deer, white fallow	Cervus dama.
1 Deer, mule	Odocoileus hemionus.
1 " Sambur	Cervus aristotelis.
2 " axis	Cervus axis.
8 Elk	Cervus canadensis.
3 Eagle, bald	Haliaetus lencocephalus.
1 " golden	Aquila chrysætos.
1 Fox, red	Vulpes fulvus.
5 Geese, wild	Branta canadensis.
5 Guinea pigs	Caviidoe cutleri.

DEER—BELLE ISLE ZOO

OSTRICH—BELLE ISLE ZOO

2 Heron Great Blue.....Ardea herodias.
3 Hawk, red-tailed .....Buteo borealis.
1 Lynx, Canada .....Lynx canadensis.
1 " bay .....Lynx rufus.
3 Ostriches.....Struthio Australis.
1 Otter .....Lutra canadensis.
6 Owls, horned .....Bubo virginianus.
1 Owl, snowy .....Nyctea Nyctea.
5 Prairie dogs .....Cynomys ludovicianus.
1 Pheasant, Amherst .....Thaumalea Amherstiae.
7 Pheasants, golden .....Thaumalea Picta.
14 " ringnecked .....Phasianus torquatus.
4 " silver .....Euplocomus nycthemerus.
1 Peafowl .....Pavo cristata.
4 Raccoons .....Procyon lotor.
6 Rabbits, English .....Lepus cuniculus.
3 Sea Lions .....Zalophus californianus.
4 Swans, white .....Cygnuo olor.
2 " Black .....Chenopis atratus.
2 Wolves, Coyote .....Canis latrans.
2 " gray .....Canis occidentalis.
2 " timber .....Canis occidentalis.
1 Zebu .....Bos indicus.

Bathhouse:

The bathhouse has about outlived its usefulness because of its size and manner of construction, and should be in some manner temporarily enlarged.

A bathhouse on Belle Isle park should be adequate in size to the increasing demand of our growing city.

There are about the island several beautiful beaches where some of the advantages of a sea-shore beach could be had.

A new building should be provided at no distant day where the public could be accommodated.

There were 56,944 male and 8,156 female bathers, or a total of 65,100 bathers, who availed themselves of the limited privileges offered during the past year, the receipts being $4,650.60.

LAKE OKONOKA—BELLE ISLE

Belle Isle Improvements

The improvements on Belle Isle park, with the exception of resurfacing of roads, walks and the ornamentation of the grounds around the aquarium and horticultural building, were all of a minor but of a substantial nature.

The contract for the construction of the new casino was let on March 22, 1906, to Louis Schmied for $85,429.81, to be completed by August 1, 1907. The heating of the building was let at the same time to Jos. J. Doyle & Co., for $2,277.

Convenience Station:

The contract for the public convenience station to be erected on Cadillac park was let to Stokes & Whittingham on January 15, 1906, for $9,014.00. The work was commenced and then stopped because of the pending action of the common council and board of estimates, who, after consideration, granted an additional appropriation that the station might be made larger and for its equipment with a forced heating and ventilating system, that it might be sanitary and as free from odor as possible. The contract for the enlargement and heating and ventilating system was also let to Stokes & Whittingham on May 29, 1906, for $6,546. Owing to the many delays in construction it is hoped to open the station by the middle of November.

Boulevard:

By an act of the legislature, the city issued $250,000 bonds to complete the Grand Boulevard roadways, Lafayette Boulevard roadway from the Grand Boulevard to Scotten avenue, and to construct a subway separating the grades at the intersection of the boulevard and the M. C. R. R., L. S. & M. S. and the G. T. Railway tracks. Six contracts were let on September 2, 1905, as follows:

PALMER PARK

To Lennane Bros.—

Vinewood to the railroad, tar macadam roadway	$15,305 00
Visger to Buchanan, macadam roadway.....	18,104 30
Hancock to Holden, macadam	48,094 40

To Thos. J. Kennedy—

Mack to Gratiot, macadam roadway.....	21,602 90
St. Aubin to Chene, macadam roadway.....	15,171 00
Lafayette Boulevard, tar macadam.....	14,568 40

MARSH RUN

Work was soon after commenced, and progressed until December 26, 1905, at which time it was discontinued pending an investigation by the common council of a complaint made by the Curb Stone Cutters' Union, that the work was not up to specifications, as recorded on pages 1378 and 1398, Journal of the Common Council for 1905.

A contract was also let to Lennane Bros., September 2, 1905, for the construction of a speedway in the center lawn on the Western Grand Boulevard, between McGraw and Holden avenues, for the sum of $5,356.87. No work has been done on this contract, as the property owners adjoining this section of the boulevard obtained an injunction which still rests in the supreme court.

The eastern roadway of the Western Grand Boulevard between Fort and River streets was built, and a brick intersection at Baker street, and the Western Grand Boulevard was constructed. A number of smaller necessary improvements were made on the Grand Boulevard in addition to the resurfacing of the roadways as far as the money appropriated would permit.

The future of the boulevard macadam roadways has now become a problem, not only in our city but in many of the larger cities of our country, on account of the automobile traffic. The rapid speed and manner of propelling automobiles tends to destroy macadam roadways.

PALMER PARK

BELLE ISLE

Oiled and tarred roads have met with considerable success in Chicago and other large cities, and it is now proposed in the near future to try the experiment on some sections of the Grand Boulevard.

After the careful study of the speed of automobiles, and the absolute disregard of the law relative to the eight-mile limit, it is believed the law should be changed, making the limit of speed on the parks 10 miles per hour and on the boulevard 15 miles per hour, and the law so safeguarded that it will be adhered to.

Maintenance:

Last but not least is the maintenance of the park and boulevard system, and the protection of the property under the control of this department. The appropriations for maintenance should be liberal. The playgrounds of the people should be kept at a high standard of maintenance at all times.

The parks and boulevards belong to all of the people and are always open to all citizens on equal terms. Special privileges to none nor the use of them given to any one for any purpose not practically common to all, and consistent with the proper use of public parks.

Respectfully submitted,

PHILIP BREITMEYER,
Commissioner.

M. P. HURLBUT,
Secretary.

NASHUA CANAL IN THE WOODS—BELLE ISLE

Secretary's Report

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—I herewith hand you the annual financial statement of this department.

The cash balance of the park and boulevard fund in the hands of the city treasurer for the fiscal year ending June 30, 1906, is $329,206.23.

The balance is certified to by the city controller, as per his statement hereto attached.

In addition to the financial report there is an itemized list of the principal improvements, their cost, bonds issued, estimates asked for and allowed, together with the yearly expenditures of money received from all sources since the first park was established in 1854. Respectfully submitted,

M. P. HURLBUT,
Secretary.

July 1, 1906.

Office of the Controller,
July 1, 1906.

M. P. Hurlbut, Secretary Department of Parks and Boulevards, Detroit, Mich.:

DEAR SIR:—I hereby certify that the cash balance to the credit of the park and boulevard fund at the close of the fiscal year, June 30, 1906, was $329,206.23. Respectfully,

HOWARD C. BECK,
Deputy Controller.

" horse roller	150 00	
" hay	15 00	
" horses	701 75	
" barrels	3 35	
" linoleum	16 00	
Ice privileges, cutting ice	100 00	
Feed and care of horse	50 00	
Hauling men	18 75	
Encroaching on boulevard (lease)	1 00	
Sale of letter press	7 50	
Sale of horse shoes	51 42	498,162 01
Total receipts		$630,359 62

EXPENDITURES—GENERAL MAINTENANCE

Administration.		
Salaries	$ 11,754 31	
Printing and stationery	713 85	
Office rent, etc.	1,198 40	$ 13,666 56
Engineering Department.		
Salaries	$ 2,121 05	
Supplies	241 53	$2,362 58
Telephones.		
Rent, supplies, etc.		$ 355 88
Greenhouse Department.		
Propagation	$ 7,331 85	
Floral planting	40 59	
Stock, fuel, etc.	553 20	$ 7,925 64
Tools.		
Purchase	$ 1,106 80	
Repair	1,089 21	$ 2,196 01

Rollers (2).

Wages	$ 1,262 82	
Fuel, supplies, etc.	396 36	
Repair	520 75	$ 2,179 93

Crusher.

Wages	$ 802 23	
Repair	1,225 83	
Supplies	135 52	$ 2,163 58

Barn Department.

Barns and horses, care of	$ 7,415 35	
Vehicles	577 24	
Shoeing	847 02	
Harness	378 71	
Supplies	420 12	
Forage	5,951 02	
City barn rent, etc.	1,085 01	
Shoeing, city barn	230 28	
Forage, city barn	924 93	
Auto repairs	541 72	
Forage, Palmer	271 13	
Shoeing, Palmer	11 55	$ 18,654 08

Band Concerts.

Concerts		$ 5,551 07

Nursery Department.

Wages	$ 2,707 16	
Stock	75 90	
Supplies	7 11	$ 2,790 17

Fertilizer.

Purchase and hauling		$ 590 55
Total general maintenance		$ 58,436 05

General Improvements.

Cobble	$ 1,441 78	
Horses	2,775 00	
Harnesses	350 46	
Wagons	476 55	
Light wagon	125 00	
Carts	63 65	
New greenhouse	10,952 87	
Hot bed frames	81 19	
Total general improvements		$ 16,266 51

BELLE ISLE MAINTENANCE

Power Plant.

Wages	$ 4,828 37	
Fuel	2,555 05	
Repairs	180 66	
Supplies	387 47	
Engine	356 00	$8,307 55

Aquarium.

Wages	$ 6,323 30	
Feed	665 54	
Supplies	404 15	
Live stock	1,998 23	
General	1,866 46	$ 11,257 68

Horticultural Building.

Wages	$2,688 00	
Supplies	65 78	
Plants	15 00	
General repairs	287 11	$ 3,055 89
Roof		300 00

General Maintenance.

General maintenance	$26,830 52	
Flower beds	392 80	
Sewers	27 00	
Supplies	534 07	
Walk Park Rest	192 17	
Trees, care of	124 99	
Benches	38 30	
Water main repairs	194 75	
Hitching bays	9 33	
Fuel	1,552 91	$29,896 84

Buildings.

Casino, repairs	$ 356 15	
Bath house	242 14	
Skating pavilion	577 55	
Boat house	20 37	
Barn	650 19	
Greenhouse	950 71	
Inselruhe	120 56	
Ice house	176 54	
Pavilions	245 10	
Buildings, generally	1,109 21	
Furniture	162 09	$ 4,610 61

Roads and Walks.

Maintenance of roads generally	$ 1,091 21	
Hitching bays	7 53	1,098 74
Dock repair		147 24
Bridges, repairs		166 05
Water system		47 89

Lakes and Canals.

Cleaning	$ 170 05	
Cutting ice	630 38	$ 800 43

Zoo.

Care of animals	$ 1,401 74		
Feed	2,355 41		
Cages	621 79	$ 4,378 94	

Closets and Cesspools.

Care of	$ 1,530 38		
Repairs	363 41		
Supplies	88 41	$ 1,982 20	

Phaetons.

Phaeton repairs	$1,410 16		
Phaeton service	5,812 86	$ 7,223 02	

Bath House.

Maintenance (service)	$2,566 55		
Bathing suits, supplies	1,019 43	$ 3,585 98	
Patrolmen		615 50	

Park Rest.

Wages	$ 820 87		
Fuel	76 70		
Supplies	1 85	$ 899 42	$55,452.88
Total Belle Isle maintenance			$ 78,373 98

BELLE ISLE IMPROVEMENTS

Roads and walks construction and resurfacing	$ 2,910 62	
Roads and walks, loan account		$ 2,000 00
Animals	256 45	
Fountains	28 40	
Settees and swings	333 59	
Athletic field	175 67	
Life boat	50 00	
Flag	442 25	
Riprapping	219 77	
Aquarium grounds	1,500 00	
Gates (shut off)	3 50	

Saw set	50 00	
Saw gummer	75 00	
Sewer	80 69	
Stock horticultural building	610 71	
Banks Belle Isle bridge	82 25	
New casino	18,591 98	
New ice house	4,458 89	$ 29,869 77
Total Belle Isle improvements		$ 31,869 77

PALMER PARK MAINTENANCE

General maintenance	$ 4,640 01		
Roads	166 04		
Supplies	16 00		
Lawns	113 63		
Cutting ice	64 38		
Trees	24 50		
Casino	484 05		
Floral	140 44		
Forage	93 75		
Shoeing	19 25		
Buildings	1,323 76		
Fuel	401 99	$ 7,487 80	
Rustic bridges		163 75	
Waiting room		29 80	
Total Palmer park maintenance			$ 7,681 35

PALMER PARK IMPROVEMENTS

General improvements	$ 382 42		
Trees	192 50		
Road construction	679 26	$ 1,254 18	
Settees		200 00	
Water system		26 73	
Total Palmer park improvements			$ 1,480 91

CLARK PARK MAINTENANCE

General maintenance	$ 3,128 28	
Trees	47 25	
Total Clark park maintenance		$ 3,175 53

CLARK PARK IMPROVEMENTS

General improvements	$2,026 57	
Sewer	572 00	
Total Clark park improvements		$ 2,598 57

CITY PARKS MAINTENANCE

Maintenance Cass	$ 45 45		
Maintenance soldiers' monument	27 47		
Maintenance generally, city parks	4,069 21		
Water system, city parks	97 01		
Floral, city parks	1,547 27		
Trees, city parks	91 00	$ 5,877 41	
Caretakers		5,896 22	
Total city parks maintenance			$ 11,773 63

CITY PARKS IMPROVEMENTS

Owen	$ 384 64
Perrien	32 42
Grand Circus	336 76
Cass	680 09
Stanton	21 76
Macomb	199 07
Campau	43 62
Cadillac	30 88
West	12 26
Clinton	26 60

Capitol	20 01	
Washington	200 00	
Medbury	22 50	
Voigt	355 51	
City Hall lawn	100 00	
Elton	3 50	
Crawford	15 75	
Boston, east	72 34	
Boston, west	102 15	
Opera House lawn	25 05	
Atkinson	56 94	
Public convenient station	1,750 89	
Total city parks improvements		$ 4,492 74

GRAND BOULEVARD MAINTENANCE

General maintenance	$5,597 95		
Lawns	517 83		
Trees	498 26		
Floral	480 40		
Water system	255 71		
Road maintenance	11 05		
Walks repairs	13 06		
Road sprinkling	2,711 77	$10,086 03	
Caretakers		4,091 01	
Patrol		1,420 00	
Dequindre bridge		117 35	
Total Grand Boulevard maintenance			$ 15,714 39

GRAND BOULEVARD IMPROVEMENTS

Gates	$ 76 27
Trees	250 00
Walk intersections	792 39
Sidewalks	155 79
Re-surfacing	1,189 80
East roadway	4,191 52

Baker intersection	1,480 40	
Gratiot intersection	3,488 00	
Speedway	22 87	
Sewer and basin	200 00	
Dock	1,256 88	
Dock walk	500 00	
Subway	18,799 33	
Paving	29,784 59	
Total Grand Boulevard improvements		$ 62,187 84

LAFAYETTE BOULEVARD MAINTENANCE

Maintenance, general	$504 90	
Caretaakers	1,976 48	
Patrol	1,382 00	
Roadway repairs	2,109 88	
Total Lafayette Boulevard maintenance		$5,973 26

LAFAYETTE BOULEVARD IMPROVEMENTS

General improvements	676 56	
Roadway	29 85	
Walk intersections	422 45	
Total Lafayette Boulevard improvements		$1,128 86

RECAPITULATION

Park and Boulevard Fund.

	Maintenance	Improvements
General maintenance and improvements.	$58,436 05	$16,266 51
Belle Isle " "	78,373 98	31,869 77
Palmer " "	7,681 35	1,480 91
Clark " "	3,175 53	2,598 57
City parks " "	11,773 63	4,492 74
Grand Boulevard "	15,714 39	62,187 84
Lafayette Boulevard "	5,973 26	1,128 86
	$181,128 19	$120,025 20
Maintenance		$181,128 19
Total Expenditures		$301,153 39
Cash Balance, June 30, 1906		$329,206 23
Grand Total		$630,359 62

PARK IMPROVEMENT FUND

July 1, 1905—Cash Balance, June 30, 1905		$1,314 44
Changes in aquarium	$ 148 50	
Architect	75 02	
Marble	1,090 92	$ 1,314 44

PARK AND BOULEVARD SYSTEM

Bonds Issued and Estimates Asked and Allowed

Total bonds issued for Belle Isle park	$1,015,000 00
" " " " City parks	81,000 00
" " " " Grand Boulevard	1,330,000 00
Total	$2,426,000 00

Estimates Under Acts of May 8, 1899, and May 4, 1901

	ASKED	ALLOWED
1889	$ 231,000 00	$ 101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428,661 00	173,502 00
1901	454,893 00	161,265 00
1902	272,169 00	198,913 00
1903	368,170 00	227,363 00
1904	486,517 00	240,841 00
1905	566,776 00	241,516 00
1906	517,881 00	232,196 00
	$5,270,887 00	$2,764,682 00

PRINCIPAL IMPROVEMENTS

Lakes.		
Lake Takoma, Belle Isle park, 1887	$21,981 75	
" " " " " deepened, 1892	5,444 55	
" " " " " " 1900	7,019 43	
" " " " " " 1901	4,000 00	$38,445 73
Lake Okonoka, Belle Isle park, 1888-9		58,658 73
" Muskoday " " " 1893		45,055 99
Lily pond, " " " 1890		2,990 15
Zoo lake (concreting) 1904		1,200 00
Canals.		
Loop Canal, Belle Isle park, 1883	$11,182 00	
" " " " " deepened, 1901	2,500 00	
" " " " " " 1902	2,500 00	18,682 00
Nashua " " " " 1890		37,741 97
Water Mains.		
Water mains, Belle Isle park, 1894-5-6		$29,623 52
Docks.		
Sheltered ferry dock, Belle Isle park, 1894		12,520 65
Bridges.		
Stone bridge No. 1—Over north inlet to Loop canal, on Pleasure place, Belle Isle, 1894		$5,438 25
Steel bridge No. 2—Over Loop canal, near Muir fountain, Belle Isle, 1892		5,962 53
Stone bridge No. 3—Over Marsh Run, on Muse road, Belle Isle, 1894		8,205 80
Wooden bridge No. 4—Over Lily pond, built in 1901		206 00
Stone bridge No. 5—(foot); over Marsh Run, Belle Isle, 1894		1,400 00
Steel bridge No. 6—Over Loop canal, on Central avenue, Belle Isle, 1892		14,301 43
Stone bridge No. 7—Over Loop canal south of bridge No. 6, Belle Isle, 1892-3		5,852 72
Stone bridge No. 8—Over outlet at S. W. corner of Belle Isle, 1894		5,462 34

Stone bridge No. 9—(foot); over outlet to Lake Takoma, Belle Isle, 1894-9	1,732 61
Stone bridge No. 10—Over canal at head of Lake Takoma, built in 1900-1-2	6,962 52
Brick and stone bridge No. 11—Over inlet to Lake Takoma, built in 1901-2	3,600 00
Stone bridge No. 12—Over south inlet to Nashua canal, built in 1900-1-2	3,577 79
Stone bridge No. 13—Over Nashua canal east of Belle Isle barns, built in 1903	5,500 00
Steel bridge No. 14—Over Nashua canal, at athletic shelter, Belle Isle, 1899-1900	4,538 35
Wooden bridge No. 15—Over Nashua canal on Hermit's Pass, built many years ago, now worthless	———
Stone bridge No. 16—Over inlet to Nashua canal on Woodside drive, built in 1903	3,500 00
Wooden bridge No. 17—Over S. E. inlet to Lake Okonoka on Lakeside drive, abandoned in 1900 and inlet filled up	———
Stone and steel bridge No. 18—Over east inlet to Lake Okonoka on Lakeside drive, built in 1902-3	5,500 00
Stone bridge No. 19—Over south inlet to Lake Muskoday, Belle Isle, 1894	4,578 47
Stone bridge No. 20—Over north inlet to Lake Muskoday, Belle Isle, 1894	3,999 62
Stone bridge No. 21—Over outlet to Lake Muskoday, 1894	3,559 77
Wooden bridge No. 22—Was built many years ago and is now worthless	———
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9	44,786 61

Buildings.

Aquarium and horticultural building and equipment, 1900-1-2-3-4-5	163,567 15
Animal shelter, 1903-4	11,384 78
Athletic pavilion, Belle Isle, 1899	12,828 72

Casino, Belle Isle, 1886-7-8	19,066 45
Casino, New, Belle Isle, 1905	18,591 98
Boathouse, Belle Isle, 1887	5,587 28
Engine house, pavilion and earth closets, Belle Isle, 1887, engine house abandoned 1896	5,966 84
Greenhouse, Belle Isle, 1899, 1900-1-2-4	17,794 45
Ice house, 1900-1-5	6,892 11
Implement and wagon shed, 1902-3-4	9,895 18
Music pavilion, Belle Isle, 1902	2,500 00
Bathhouse, Belle Isle, 1894	16,179 88
Horse shelter (old market building), Belle Isle, 1894	3,110 06
Skating pavilion, Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895	12,053 21
Women's toilet (brick) Belle Isle, 1895	1,085 49
Women's toilet (stone) Belle Isle, 1896	2,208 56
Women's toilet (brick) Belle Isle, 1904	2,500 00
Wolf inclosure, 1903-4	1,790 00
Picnic pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Police station (park board's share) Belle Isle, 1892	2,000 00
Women's toilet, Clark park, 1893	4,205 59
Men's toilet, Clark park, 1899-1900	2,295 00
Shelter pavilion, Clark park, 1895	1,675 00
Picnic pavilion, Palmer park, 1895	1,167 53
Casino, Palmer park, 1896-1899	11,799 73
Women's toilet, Palmer park, 1902-3	1,999 98
Men's toilet, Palmer park	2,000 00
Log waiting room, Palmer park, 1900	1,212 07

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1	8,821 82
Fountain, Capitol park, 1896	2,351 83
Fountain, Stanton park, 1896	670 00
Horse drinking troughs, Grand Boulevard, 1896	1,606 38
Dock, foot of Western Grand Boulevard, 1903	10,883 07

MISCELLANEOUS INFORMATION TO ANSWER THE MANY INQUIRIES MADE

City population, 350,000.

City acreage, 23,040.

Park and boulevard acreage, 1,195.067.

Parks and boulevard valuation, $10,387,900.00.

Belle Isle park is 2 miles long.

" " " has 5½ miles shore drive.

" " " has 14½ miles of driveway.

" " " has 5 1-10 miles gravel walks.

" " " flag staff is 146.86 feet in height.

" " " flag is 30 x 50 feet.

Belle Isle bridge is ½ mile long less 8 feet.

" " zoo grounds contain 15 acres.

Park and boulevard system has 15½ miles of gravel walk.

" " " " has 38.1 miles of roadway.

Macadam road, Belle Isle	221,173	square	yards.
" " Palmer park	17,566	"	"
" " Clark "	11,366	"	"
" " Grand Boulevard	352,007	"	"
Brick " " "	3,494	"	"
Asphalt " Lafayette "	27,401	"	"
Cedar block " " "	20,232	"	"

Area of Lakes

Lake Takoma,	Belle Isle park,	15.30 acres.
" Muskoday,	" " "	34.23 "
" Okonoka,	" " "	22.56 "
" Higinio, " Frances,	Palmer park,	4.58 "
Clark park lake		.66 "

PARK AND BOULEVARD SYSTEM

Names.	Locations.	Acreage.
Adelaide Campau	Campau, Mullett and Clinton sts	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13.470
Belle Isle	Island in the Detroit river	707.000
Boston parkway	Boston boulevard east and west	5.734
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Rowland sts	.510
Cass	Second ave., Ledyard and Bagg sts	4.966
Chicago parkway	Chicago boulevard, east and west	5.008
City Hall	Woodward ave., Fort and Michigan	.550
Clark	Dix, Scotten, Lafayette and Clark aves	31.601
Clinton	St. Antoine, Mullett and Raynor sts	1.068
Crawford	Fifth and West High sts	.746
Elton	Fifth and Orchard sts	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts	.448
Macomb	17th, 18th and Rose sts	.557
Medbury	Medbury ave., John R. to Rivard sts	3.440
Opera House	Woodward and Monroe aves	.174
Owen	Jefferson ave. and river	6.990
Palmer	Woodward ave.	140.410
Parker parkway	Parker ave. north of Jefferson ave	.373
Perrien	Chene, Grandy, Hancock and Warren aves	5.180
Recreation	Brush, Brady to Alexandrine ave	1.290
Scripps	Grand River, Trumbull and Commonwealth	1.333
Second avenue parkway	Second ave. bet. Colburn pl. & R. R.	1.110
Stanton	17th, 18th and Porter sts	.695
Voigt	Edison and Longfellow aves	6.795
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
Lafayette boulevard		22.770
Total 29 parks and the boulevard		1,195.067
Grand boulevard mileage		11.62
Lafayette boulevard mileage		2.36
Total boulevard mileage		13.98

CLARK PARK

COMPILED FROM CITY RECORDS.

Year	MAINTENANCE						
	GENERAL Inc. Gen. Imp.	BELLE ISLE	PALMER PARK	CLARK PARK	SMALL PARKS	GRAND BOULEV'D	LAF'Y BOUL
1854	On account of change in fiscal year the item in 1878 is for 17 months and in 1896 it is for 18 months: $5,416.67 commissioner's salary in 1900-01 from contingent fund.			Included in maintenance of small parks from 1890 to 1899.	$1,869 75		
1855					167 98		
1856					1,163 36		
1857					934 29		
1858					268 45		
1859					181 46		
1860					185 74		
1861					1,915 14		
1862					2,862 65		
1863					1,981 15		
1864					2,391 69		
1865					1,324 58		
1866					2,686 53		
1867					1,945 00		
1868					1,433 12		
1869					1,344 98		
1870					2,351 93		
1871					4,333 36		
1872					3,345 99		
1873					2,111 38		
1874					3,509 83		
1875					3,368 21		
1876					6,924 08		
1877					2,666 24		
1878					2,180 04		
1879		$ 1,415 50					
1880					1,750 04		
1881		900 43			1,612 76		
1882	$ 2,410 98	1,948 62			2,189 11		
1883	3,060 55	18,043 30			1,606 58		
1884	2,905 83	13,519 69			2,612 43		
1885	2,094 70	3,875 54			1,163 50		
1886	3,374 76	13,917 61			2,224 96		
1887	3,431 11	45,981 99			2,227 75		
1888	7,105 67	21,000 34			2,837 92		
1889	8,501 98	21,487 55			2,155 92	$ 5,149 73	
1890	10,860 90	25,646 86			5,212 50	7,501 60	
1891	10,256 04	42,993 96			10,216 77	16,389 66	
1892	14,899 96	43,798 60			13,901 23	11,411 85	
1893	31,374 27	43,593 02			7,385 39	4,570 67	
1894	30,839 92	31,079 12	$ 393 19		7,828 59	12,464 92	
1895	29,384 79	32,769 67	1,066 78		6,104 17	10,972 25	
1896	36,502 16	48,222 16	3,163 13		11,822 10	12,998 76	
1897	28,587 98	42,477 04	2,612 04		10,464 03	10,050 59	
1898	27,142 25	37,500 33	4,003 55		10,057 85	13,195 74	
1899	44,924 17	36,737 22	4,325 83	$ 446 48	7,663 63	10,009 01	
1900	54,663 59	35,350 87	5,001 86	1,926 38	8,162 98	11,120 95	
1901	65,401 04	39,375 20	4,665 31	1,994 22	9,883 20	13,191 80	
1902	59,920 81	52,840 21	5,455 28	2,412 11	9,800 80	13,081 97	$2,50
1903	61,370 21	63,320 53	5,417 81	2,904 44	11,202 88	15,378 27	2,49
1904	70,615 21	69,416 94	7,916 13	2,637 26	11,237 56	21,256 27	16,07
1905	74,702 56	78,373 98	7,681 35	3,175 53	11,773 63	15,714 39	5,97
	$774,331 44	$865,586 28	$51,702 26	$15,496 42	$226,645 21	$204,458 43	$27,0

Eighteenth Annual Report of the Department of Parks and Boulevards of the City of Detroit 1907.

EIGHTEENTH ANNUAL REPORT

OF

The Department of Parks and Boulevards

City of Detroit, Michigan.

July 1, 1906 to June 30, 1907, inclusive

PHILIP BREITMEYER
Commissioner
M. P. HURLBUT,
Secretary.

H. W. BUSCH,
General Supt.
W. B. MAURICE,
Engineer

RAYNOR & TAYLOR, PRINTERS, DETROIT.

OLD WELL, PALMER PARK

Park Commissioners

1871—1907

Park Commissioners Under the Act of 1871:

G. V. N. Lothrop, Robert P. Toms, A. Smith Bagg,
John J. Bagley, Merrill I. Mills, Wm. A. Butler,
Chas. I. Walker, Chas. C. Trowbridge.

Park Commissioners Appointed in 1879 by Mayor Langdon:

Theo. Chapoton, W. K. Muir, John Pridgeon, Jr.,
August Goebel, E. F. Conely, W. B. Moran.

Board of Belle Isle Park Commissioners Organized Sept. 6, 1881:

NAMES	Appointed	Expiration of Term	REMARKS.
Merrill I. Mills	Aug. 30, 1881	Aug 31, 1882	
Aug. Marxhausen	Aug. 31, 1881	Aug. 31, 1883	Re-appointed.
Wm. A. Moore	Aug. 30, 1881	Aug. 31, 1884	Re-appointed.
Jas. McMillan	Aug. 30, 1881	Aug. 31, 1885	Resigned 1884. D. M. Ferry appointed for unexpired term.
Wm. B. Moran	Sept. 1, 1882	Aug. 31, 1886	
Aug. Marxhausen	Sept. 1, 1883	Aug. 31, 1887	
Dexter M. Ferry	Feb. 15, 1884	Aug. 31, 1885	Filling unexpired term Jas. McMillan.
Wm. A. Moore	Aug. 31, 1884	Aug. 31, 1888	Resigned 1887. E. T. Slocum appointed for unexpired term.
Jos. A. Marsh	Jan. 22, 1886	Aug. 31, 1889	
Elliott T. Slocum	Mar. 22, 1886	Aug. 31, 1888	Filling unexpired term of Wm. A. Moore.

NAMES	Appointed	Expiration of Term	REMARKS.
FRED L. SEITZ	Oct. 8, 1886	Aug. 31, 1890	Resigned 1888, F. F. Palms filling unexpired term.
FRANCIS ADAMS	Aug. 12, 1887	Aug. 31, 1891	Resigned in 1888.
FRANCIS F. PALMS	Aug. 1, 1888	Aug. 31, 1900	Filling unexpired term of F. L. Seitz, resigned.
AUG. MARXHAUSEN	Aug. 1, 1888	Aug. 31, 1891	Filling unexpired term of F. Adams, resigned.
ELLIOTT T. SLOCUM	Sept. 5, 1888	Aug. 31, 1892	

Under the Act of May 8, 1889, abrogating the Belle Isle Park Commission, the Commissioners of Parks and Boulevards was organized with four provisional commissioners, HENRY M. DUFFIELD, ELLIOTT T. SLOCUM, FRANCIS PALMS and WM. B. MORAN, who were succeeded by the following:

Commissioners of Parks and Boulevards.

GEO. H. RUSSELL	May 21, 1889	May 31, 1890	Served until Jan. 9, 1891.
JOHN ERHARD	May 21, 1889	May 31, 1891	
WM. LIVINGSTONE, JR.	May 21, 1889	May 31, 1892	Re-appointed.
WM. K. PARCHER	May 21, 1889	May 31, 1893	
FRED A. BAKER	Jan. 9, 1891	May 31, 1894	Resigned May 3, 1892. S. Baldwin appointed for unexpired term.
STEPHEN BALDWIN	May 3, 1892	May 31, 1894	Resigned Nov. 15, 1892, James E. Scripps appointed to fill unexpired term.
JAS. E. SCRIPPS	Nov. 15, 1892	May 31, 1894	Re-appointed.
FRED GUENTHER	Aug. 1892	May 31, 1895	
WM. LIVINGSTONE, JR.	May 1892	May 31, 1896	Resigned Nov. 28, 1893. Aug. Marxhausen appointed to fill unexpired term.
AUG. MARXHAUSEN	Nov. 28, 1893	Mav 31, 1896	Declined to serve.
GEO. C. WETHERBEE	Jan. 9, 1894	May 31, 1896	Filling unexpired term of Wm. Livingstone, Jr.

NAMES	Appointed.	Expiration of Term	REMARKS.
CHAS. K. LATHAM	May 31, 1893	May 31, 1897	Resigned Dec. 31, 1896. James A. Randall appointed to fill unexpired term.
JAS. E. SCRIPPS	June 5, 1894	May 31, 1898	Resigned March 1, 1896. A. S. Parker appointed to fill unexpired term.
CARL SCHWEIKART	June 11, 1895	May 31, 1899	Resigned June 13, 1898. Wm. Geist appointed to fill unexpired term.
ARTHUR S. PARKER	Mar. 1, 1896	May 31, 1898	Filling unexpired term of Jas. E. Scripps.
P. H. A. BALSLEY	June 1, 1896	May 31, 1900	Re-appointed.
JAS. A. RANDALL	Jan. 12, 1897	May 31, 1897	Filling unexpired term of C. K. Latham.
BENJ. R. HOYT	June 22, 1897	May 31, 1901	Resigned June 28, 1898. A. J. Murphy appointed to fill unexpired term.
EDWARD C. VANLEYEN	June 6, 1898	May 31, 1902	
WM. GEIST	June 13, 1898	May 31, 1899	Filling unexpired term of Carl Schweikart and re-appointed.
ALFRED J. MURPHY	June 28, 1898	May 31, 1902	Resigned April 1, 1899.
ALEXANDER W. BLAIN	Apr. 18, 1899	May 31, 1901	To fill unexpired term of A. J. Murphy.
WM. GEIST	May 31, 1899	May 31, 1903	
P. H. A. BALSLEY	May 31, 1900	May 31, 1904	

Under the Act of May 1889, abrogating the Commissioners of Parks and Boulevards, the office of the Commissioner of Parks and Boulevards was created.

Commissioners of Parks and Boulevards.

R. E. BOLGER	May 4, 1901	May 31, 1905	Re-appointed.
R. E. BOLGER	May 31, 1905	May 31, 1909	Dismissed April 9, 1906.
PHILIP BREITMEYER	Apr. 10, 1906	May 31, 1909	To fill unexpired term of R. E. Bolger.

BELLE ISLE BRIDGE APPROACH AT JEFFERSON

Department of Parks and Boulevards.

To the Honorable, the Common Council:

Gentlemen:—In presenting my report as commissioner of parks and boulevards of the city of Detroit, it behooves me to say that I have had great pleasure in advancing for the common good a series of ideas and thoughts which have become fascinating to me in all their details.

The city of Detroit as well as myself are fortunate, indeed, in having men of efficiency in the service of the department of parks and boulevards, who take interest in their work and are ever ready to devote their time in study for the betterment of and to producing better results for the general good of all.

No park system that I have visited is so varied in its attractions and offers so much real pleasure to the people. Plans for the future will embrace much needed additions and I sincerely hope that the system of work now established will go forward indefinitely.

Engineering Department:

The improvements on the system are varied and nearly all of them require, in some manner, the services of a civil engineer.

The work of this department is extremely important as proper records for future maintenance reduce the cost of maintenance to the minimum.

PALMER PARK ENTRANCE AT WOODWARD AVE.

Under the efficient management of Engineer Maurice, the work is kept well in hand.

City Storage Yard:

The necessity of a storage yard for the department has been agitated for several years. It becomes more apparent this year than ever, for the reason that it is impossible to find a suitable barn and yard connected that is adapted to the requirements of this department. The amount of money expended each year for rent of barn would more than pay interest on a sufficient sum to purchase a site and erect suitable buildings.

I most urgently request that your honorable body acquaint yourselves with the conditions, to the end that property be purchased and buildings erected for a city storage yard and barn.

Nursery:

There is no doubt of the fact that the nursery is a very necessary adjunct to the department of parks and boulevards. The number of trees and shrubs taken from the nursery and transplanted on the park system far exceeds in value the cost of maintenance. Nearly 10,000 shrubs, 600 desidious trees and 3,000 herbaceous plants have been taken from the nursery during the past season. A thorough transplanting of trees, shrubs, etc., in the nursery has been done during the spring, which, together with new and young stock purchased, will enable the department to supply the most urgent needs for the coming fall planting.

It is the purpose of this department to continue the planting of trees, shrubs, etc. native to Michigan, in the arboretum until the collection is complete, which, when completed, will add a valuable and interesting feature to Palmer park.

Barn Department:

Owing to the increase of work to be done over the entire system, it seems essential and economical for the city to own its

BELLE ISLE BARN AND HORSES

MULES VS. HORSES

NASHAU CANAL, BELLE ISLE

own horses, and there should be at least eighty-five. It is impossible to hire horses to do the work on the system when required.

There were in possession of the department July 1, 1906, sixty-three horses, one of which died, nine were sold and nine purchased, leaving a total of sixty-two on June 30, 1907. The records will show that each horse earns more than his cost.

Phaetons:

The phaeton service has been inadequate to accommodate the public, 299,152 passengers have been carried on the phaetons across the bridge and 14,481 around the park, or a total of 313,-633, the total receipts being $9,884.43. It is quite evident that a phaeton service is a thing of the past; this is clearly shown by the people who patronize the automobile service in preference to the phaetons. Until an adequate automobile service has been established, it seems wise to keep the phaetons in commission.

Automobiles:

The automobile privilege was operated by the Huber Automobile Co. to April 1, 1907, during which time they carried 45,870 passengers across the bridge at 5 cents each and 29,152 people around the park at 25 cents for adults and 10 cents for children, or a total of 75,022 passengers, for which privilege the department received $543.24.

On April 1, 1907, the automobile privilege was let to the Belle Isle Auto Co. to carry passengers across the bridge at 3 cents from the third Sunday in May to and including the third Sunday of September and during the balance of that year at 5 cents and adults around the park at 15 cents, children at 10 cents, since which time they have carried across the bridge 57,560 passengers and around the park 7,848 people, making a total to June 30, 1907 of 65,408 passengers. The record books in the

BRIDGE NO. 13, ON HERMITS PASS, OVER NASHUA CANAL BELLE ISLE

office show a material increase in the number of passengers carried by the new company during the same period.

To accommodate the bridge and around-the-island traffic properly is a problem which will probably not be solved for some time to come. There seems, after careful study and close observation, but one solution, i. e., the erection of a new bridge of a much larger capacity than the present one, and having an elevated electric road owned and operated by the department, and the construction, at no distant day, of a new ornamental bridge is earnestly recommended, in event of which it would undoubtedly be possible to transport passengers across the bridge at 1 cent each. If this were accomplished, the traffic around the island could be easily cared for by an automobile service.

Greenhouses:

Owing to the size of the budget for the coming fiscal year, no amount was asked for the construction of new greenhouses, but of necessity must be asked for in the following year's budget. The number of plants required to carry out the work increases yearly, and it would be unwise to risk the old houses for more than another season, and it is very doubtful if the old boilers will carry longer than that period, and should they fail, the loss to the city in the value of plants would be heavy.

Horticultural Building:

The monthly exhibits in the conservatory have been greatly admired by the lovers of flora's beauties; the exhibits could and will be much improved when the new greenhouse plan is completed. It is gratifying to know that the attendance is constantly increasing, it being not an unusual thing for from ten to fifteen thousand people to pass through the conservatory in one day.

CLARK PARK SHELTER PAVILION

Aquarium:

The attendance at the aquarium is all that the accommodations will permit of. The people do not generally realize that the aquarium on Belle Isle is the third largest in the world, and that there are but some nine permanent acquaria in the entire world; it is admitted by the leading ichthologists to be the best and most economically equipped of any of the aquaria known. The records show that during the past fiscal year 738,465 people have visited it.

Power Plant:

The power plant located in the aquarium building should be seen by all visitors to Belle Isle park; its operation is most interesting and would be enjoyed by those who admire machinery. This plant contains the filtering and pumping system for the aquarium as well as the pumps and machinery for the hot water system under pressure for the aquarium and horticultural buildings and greenhouses and of sufficient capacity to heat such other buildings as may be required in the zoological grounds.

Carpentry Department:

It would be impossible to conduct an institution of the magnitude of the Detroit park system without a carpenter shop, the foreman of which is in constant demand devising plans to be carried out for the department.

Bathhouse:

The usual cry "inadequate facilities" can here be repeated. Additional space has been converted into some forty rooms, which no doubt, will somewhat relieve the congested condition. The possibility of a new bathhouse is encouraging, and a modern

BARASINGHA DEER

bath department with a permanent beach that will accommodate all who wish to bathe is greatly needed. Last year's attendance at the bathhouse was 84,917, there being 68,431 men and 16,486 women bathers, the total receipts being $6,011.40.

Zoological Department:

Until a carnivorous animal building is provided, the department will be obliged to confine its exhibit to hardy hay-eating animals. There are now on exhibition the following animals:

4	Buffaloes	Bison.
2	Bears, polar	Thalarctos maritimus.
1	Bear, grizzly	Ursus horribilis.
2	Bears, black	Ursus americanus.
1	Badger	Taxidea americana.
12	Deer, Virginia	Cariacus virginianus.
4	Deer, red	Cervus elaphus.
3	Deer, brown fallow	Cervus dama.
4	Deer, white fallow	Cervus dama.
2	Deer, Japanese	Cervus sika.
2	" Sambur	Cervus aristotelis.
2	" Barasingha	Cervus duvaucelii
2	" axis	Cervus axis.
7	Elk	Cervus canadensis.
3	Eagle, bald	Haliaetus lencocephalus.
1	" golden	Aquila chrysætos.
4	Fox, red	Vulpes fulvus.
5	Geese, wild	Branta canadensis.
10	Guinea pigs	Caviidoe cutleri.
2	Heron Great Blue	Ardea herodias.
3	Hawk, red-tailed	Buteo borealis.
2	Llama	Auchenia glama.
1	Lynx, Canada	Lynx canadensis.
1	" bay	Lynx rufus.
1	Ostrich	Struthio Australis.
1	Otter	Lutra canadensis.
6	Owls, horned	Bubo virginianus.
1	Owl, snowy	Nyctea Nyctea.
20	Prairie dogs	Cynomys ludovicianus.

JAPANESE DEER

LLAMA

1	Pheasant, Amherst	Thaumalea Amherstiae.
6	Pheasants, golden	Thaumalea Picta.
14	" ringnecked	Phasianus torquatus.
3	" silver	Euplocomus nycthemerus.
4	Peafowl	Pavo cristata.
2	" white	Pavo cristata.
4	Raccoons	Procyon lotor.
6	Rabbits, English	Lepus cuniculus.
2	Sea Lions	Zalophus californianus.
4	Swans, white	Cygnuo olor.
3	" Black	Chenopis atratus.
2	Wolves, Coyote	Canis latrans.
2	" gray	Canis occidentalis.
2	" timber	Canis occidentalis.
2	Zebu	Bos indicus.

Children's Day at Belle Isle:

Like other holidays, children's day has been established for the children, it was celebrated on June 22, this year. An ideal day was in store and all enjoyed the day greatly, a grand parade with special dances being features of the exercises provided for their pleasure; there were no accidents.

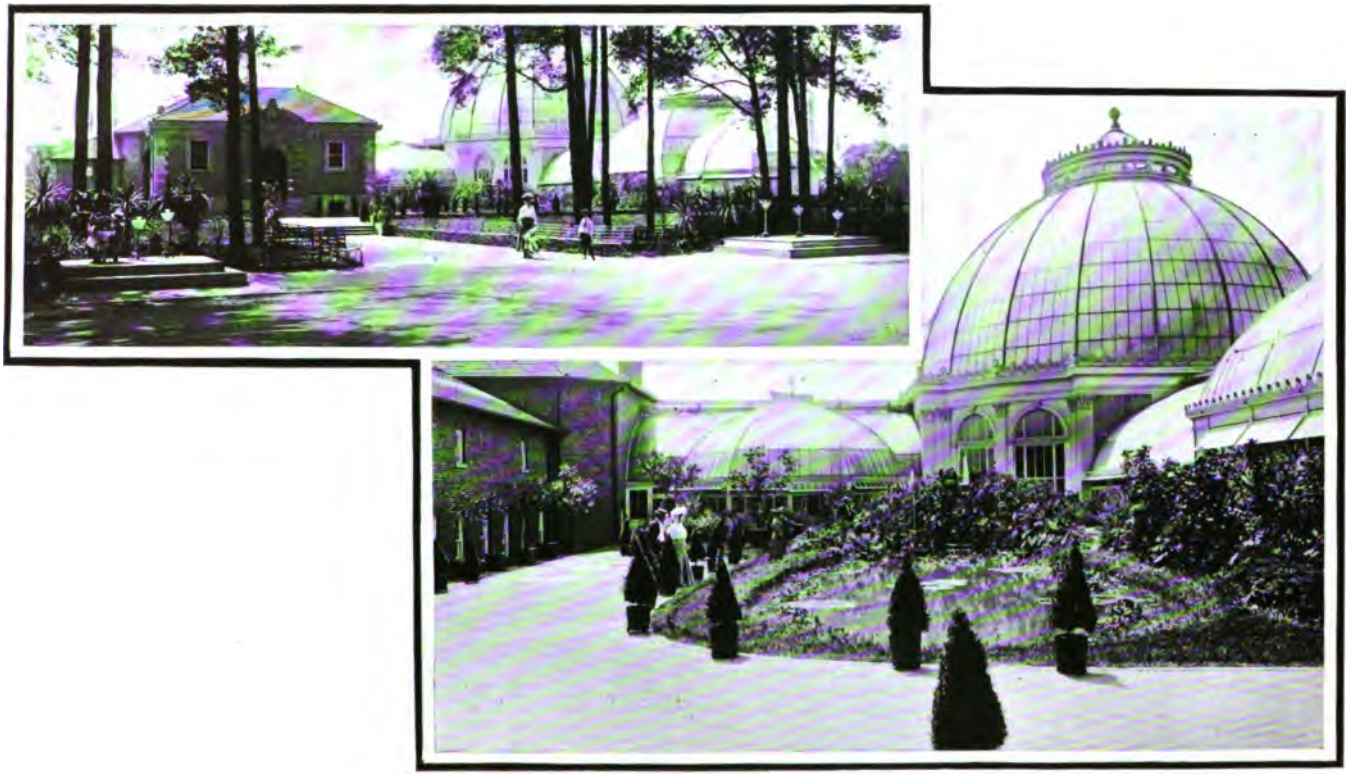
Band Concerts:

The usual number of band concerts have been given during the past season, proving universally satisfactory. For the reason that the attendance at Belle Isle park is many times that of any other park, in addition to visitors from other cities, all band concerts, in my opinion, should be given on Belle Isle park. The people generally are pleased with this form of entertainment, and therefore the appropriation should be liberal.

Belle Isle Park:

This park has had its share of improvements; changes have been made for the betterment of conditions and for the benefit of the people.

MERRY-GO-ROUND, PALMER PARK



AQUARIUM AND CONSERVATORY, BELLE ISLE

A new casino was erected during the winter and is now nearing completion. The grading of the terrace around the building is under way; plans for interior furnishings have been prepared and there seems to be nothing in the way of opening the building to the public the coming year.

Permanent benches have been provided on the banks of the canals at both sides of the band stand and also at other places.

Roads and walks have had their share of attention, the funds, however, were far from sufficient to do the necessary work. The roads, being made of gravel, do not bear the heavy automobile traffic, hence the necessity of a more substantial road building. All the roads on Belle Isle should be re-surfaced with trap rock.

Floriculture has had its share of improvements; vases filled with flowering plants established along Central avenue have added a pleasing effect, for which between forty and fifty thousand plants were required. The terrace surrounding the aquarium and horticultural building has had like treatment. Drinking fountains have been liberally added, most prominent of which is the two groups of three sanitary fountains each in front of the aquarium.

A drinking fountain of sufficient size has been erected at Park Rest, the entrance to the bridge, and no doubt fills a long-felt want. The street at this point was widened by the direction of this department, providing space to land phaetons and auto passengers independent of the public drive. A toilet for men at Park Rest was discussed at length the past season but not provided; the suggestion is made that your honorable body investigate the needs for this convenience at this place, to the end that an appropriation be made for the same the coming year.

Convenience:

The convenience station at Cadillac park cost, completed, $16,800.00 and as far as the attendance is concerned, it has cer-

PALMER PARK

tainly proven a success; the average daily attendance of men being 2,200 and 650 women, which plainly indicates that the building is not adequate for the demand. The enlargement of this building would not seem wise, but the establishment of similar stations about the city, centrally located, is recommended. From all appearances, the item for maintenance will exceed $7,000 per year.

Palmer Park:

The improvements in this park were of necessity quite limited owing to the small appropriation, the most notable improvements being the changing of the shrubbery from the road lines at the Woodward avenue entrance to the property lines of the park and continued to the wooded portions, thus creating a wide expanse of grass, relieving the contracted appearance of the entrance to the park. The toilets in the log waiting room were enlarged. A main walk from Woodward avenue to log cabin was constructed of Kentucky rock asphalt.

Clark Park:

At this park, a shelter building constructed of paving brick was built at a cost of $5,000, to be used as an open shelter in summer and for the skaters in winter. Also a cement walk was built across the park on a line with Porter street. A large amount of shrubbery has been planted on the border of the park and the trees have had a thorough pruning.

City Parks:

The small city parks have received their full share of improvements; a display fountain was constructed in Owen Park.

Voigt park was graded and a large number of trees planted.

Boulevard:

The improvements on the boulevard for the last fiscal year were of minor importance, except the new roadways built under

CENTRAL AVE., BELLE ISLE, LOOKING EAST FROM CASINO

Lennane Bros. and T. J. Kennedy contracts. T. J. Kennedy was unable to carry on the work under his contract, viz: Lafayette Boulevard, from Grand Boulevard to Scotten avenue, from Mack to Gratiot avenue and from St. Aubin to Chene street, and, under conditions in his contract, upon the advice of the corporation counsel, he was properly notified and the department proceeded to complete the work. The work will exceed the contract price, and as soon as the jobs awarded to Mr. Kennedy are completed, which will be in September, a claim will be made against the bonding company for a deficit.

Maintenance:

The expenditures for proper maintenance of parks and boulevards would greatly exceed the money which has been heretofore appropriated for the purpose. Conditions come up unexpectedly and the public on the boulevard, as well as the people who visit the parks, expect it to be in its prime at all times. In order to keep up the highest standard of maintenance, it will be necessary to make liberal appropriations for the years to come.

The roadways are in a deplorable condition; it is useless to try to patch them and expect any results. Nothing can be done other than a complete resurfacing of all the roads on the boulevard. Tests of oil on several parts of the driveways have been made with good results, the expense, however, did not permit of the oiling of a great amount of roadway. Further tests will be made during the coming season with an emulsion of oil, soap and water and it is hoped that the dust nuisance will at least be partially overcome.

The planting of trees and shrubs, the changing of old shrubs for young ones and the removing of shrubbery which rendered certain intersections dangerous has been done, but there still remains much more to be done, and it is earnestly recommended that your honorable body acquaint yourself with these

CENTRAL AVE., BELLE ISLE, LOOKING WEST FROM VISTA AVE.

conditions, that liberal appropriations may be granted for these purposes.

Play Grounds:

While the term "playgrounds" is generally understood to be independent of the parks, yet they should be in charge of this department. Some improvements have been planned and will soon be in progress in several of our city parks, principally wading pools, sand boxes, swings, etc. for the smaller children. The scheme now in vogue with the Board of Education is a good one, and this department hopes to be able to assist very materially in this work. Play grounds necessitate park-like effects, and the appropriation for the purpose in the future should be a liberal one, and hope that your honorable body will give the matter early and favorable consideration.

Respectfully submitted,

PHILIP BREITMEYER,

Commissioner.

June 30, 1907.

OWEN PARK FOUNTAIN

Secretary's Report.

To the Honorable, the Commissioner of Parks and Boulevards:

DEAR SIR:—I herewith hand you the annual financial statement of this department.

The cash balance of the park and boulevard fund in the hands of the city treasurer for the fiscal year ending June 30, 1907, is $199,409.05.

The balance is certified to by the city controller, as per his statement hereto attached.

In addition to the financial report there is an itemized list of the principal improvements, their cost, bonds issued, estimates asked for and allowed, together with the yearly expenditures of money received from all sources since the first park was established in 1854.

Respectfully submitted,

M. P. HURLBUT,

June 30, 1907. *Secretary.*

Office of the Controller, July 2, 1907.

M. P. Hurlbut, Secretary, Department of Parks and Boulevards: Detroit, Mich.:

DEAR SIR:—Replying to your letter of June 29th, I have to say that the balance to the credit of the Park and Boulevard Fund for the fiscal year ending June 30, 1907, as appearing upon the Controller's ledger, is $199,409.05.

Yours truly,

FRANK E. DOREMUS,

July 2, 1907. *Controller.*

PALMER PARK

Financial Statement.

RECEIPTS

Cash balance July 1, 1906		$329,206 23
Appropriation 1906	$212,106 00	
Casino privilege, Belle Isle	4,400 00	
Skating pavilion privilege	600 00	
Pony privilege	400 00	
Boat privilege	500 00	
Boat landings	200 00	
Ferry Licenses	600 00	
Permits (Inspec.) Parks	15 00	
Permits (Inspec.) Grand Boulevard	55 00	
Permits (Inspec.) Lafayette Boulevard	67 60	
Auto privilege	543 24	
Cashier wages (Refund from Auto Co.)	266 90	
Phaeton receipts	9,884 43	
Bath house receipts	6,011 40	
Sale of horses	1,143 25	
" Animals	515 50	
" Crates	9 00	
" Cart	10 00	
" Ice, B. I.	1,160 46	
" Ice, Palmer	67 46	
Casino privilege, Palmer	356 68	
Lease, D. B. Club	1 00	
Lease, D. Y. Club	1 00	
Use of road roller	953 22	
" crusher	172 00	
Sale of fertilizer	3 75	
" materials	17 20	
Hauling material	46 34	
Sale of horse shoes	5 00	
Boulevard sidewalk collections	68 97	
Checks unclaimed	77 30	
Labor and material	20 75	
Telephone receipts	8 47	

Sale of old iron	175 89	
" sheet lead	2 43	
" brick	22 50	
" tank	5 00	
" clock	4 00	
" tree	10 00	
Standard Oil Co., refund	4 87	
Soldiers' monument fund	100 00	
City for Vermont, Intersection	408 95	
" Cadillac Park	1,050 00	
" B. I. water main	2,600 00	
" B. I. ice house	960 00	
" Mammoth spruce log	1,000 00	
" Moving cannon and chair	727 00	
" Moving log	165 00	
Total receipts		247,522 56
Grand total		576,728 79

EXPENDITURES—GENERAL MAINTENANCE

Commissioner's salary	$ 5,000 00	
Secretary's "	2,500 00	
Gen. Supt. "	2,000 00	
Chief clerk and bookkeeper's salary	1,500 00	
Stenographer and clerk's salary	750 00	
Office	2,069 81	$ 13,819 81

Engineering Department.

Engineer	$ 1,400 00	
Draftsman	678 81	
Rodman	480 00	
Plans and supplies	176 15	$ 2,734 96

Telephones.

Telephone service, supplies, etc	$ 361 81

Greenhouse Department.

Greenhouse propagation	$ 7,407 27	
" stock	555 26	
" fuel	111 83	$ 8,074 36

Tools.

Tools purchase	$ 2,278 59	
" repairs	480 73	$ 2,759 32

Rollers (2).

Engineers	$ 1,716 53	
Repairs	441 64	
Fuel	691 96	
Supplies, etc	138 08	
Rent roller	604 50	$ 3,592 71

Crusher.

Engineer	$ 1,244 17	
Jaws	76 67	
Repairs	119 28	
Fuel	35 48	
Supplies, etc	50 60	$ 1,526 20

Nursery Department.

Forester	$ 1,497 62	
Labor	1,739 56	
Stock, fuel etc	540 03	$ 3,777 21

Fertilizer.

Purchase and hauling	$ 503 75

Band Concerts.

Concerts	$ 5,689 34

Barn Department.

Salary, Supt. barn	$ 1,500 00
" Veterinary	300 00

Wages		6,126 02	
" city barn		772 50	
Rent " "		487 00	
Hay	$3,362 96		
Oats	3,365 78		
Straw	585 90		
Bran	155 35		
Salt	7 50		
		7,477 49	
Shoeing		1,024 30	
Vehicles repairs	$ 664 80		
Auto's repairs	1181 59		
Harness	43 12		
		1,889 51	
Barn supplies		180 03	
Sprinkling wagons repairs		483 58	$ 20,240 43
Total general maintenance			$ 63,079 90

General Improvements.

Cobble	$ 2,521 86	
Horses	1,700 00	
Harness	347 11	
Wagons	6 95	
Carts	196 34	
Plant wagon	125 00	
Root house	150 00	
Road roller	1,892 50	
Automobile	1,600 00	
New greenhouse	106 53	
Total general improvements		$ 8,646 89

BELLE ISLE MAINTENANCE

Power Plant.

Wages	$ 5,034 62	
Fuel	2,705 23	
Repairs, alterations, etc	1,166 51	
Supplies, etc	403 56	
		$ 9,309 92

Aquarium.

Director	$ 2,000 00	
Wages	5,070 44	
Feed	713 71	
Supplies	663 51	
Live stock	1,376 71	
Repairs	651 56	
Painting building	200 00	$ 10,675 93

Conservatory.

Horticulturist	$ 1,500 00	
Wages	1,940 54	
Supplies	142 85	3,583 30
Horticultural bl'dg., paint		1,463 89
Horticultural bl'dg., glass		300 00

Roads and Walks.

Maintenance		$ 3,201 27

Conveniences.

Maintenance	$ 2,083 77	
Supplies	113 09	$ 2,196 86

Zoo Department.

Care of	$ 1,420 38	
Feed	2,816 14	
Cages	11 22	$ 4,247 74
Zoo fences	$ 500 00	
Ostrich shelter	150 00	
Poultry	100 00	$ 750 00

Phaetons.

Service	$ 5,654 84	
Repairs	664 26	$ 6,319 10

Bathhouse.

Service	$ 2,928 32	
Suits and towels	1,173 92	$ 4,102 24

General Maintenance.

Maintenance, generally	$ 21,533 39	
" Park Rest	835 25	
Trees	1,410 55	
Flower beds	134 93	
Fuel	1,455 98	
Dock repairs	24 43	
Cutting ice	800 54	
Park rest supplies	59 29	
Patrolmen	1,031 72	
Settees, etc	450 00	
Tables and chairs	200 00	
Picnic tables	42 48	
Swings, etc	254 67	
Bath house repairs	279 87	
Skating pavilion repairs	1,000 00	
Boat house repairs	350 00	
Inselruhe repairs	82 44	
Old greenhouse	500 00	
Hot bed frames	300 00	
Barn stalls	100 00	
Picnic pavilion	18 57	
Band stand	74 94	
Horse shelter	9 44	
Dock (bath house)	995 19	
Inselruhe dock	44 30	
Bridges	550 00	
" No. 3	24 00	
Bridge No. 6	100 00	
Hydrants and hitch bays	25 00	
Water main	2,886 05	
Water system, general	107 45	
Nashua canal	878 67	
Cleaning canal, general	46 40	$ 36,605 55

Buildings.

Casino repairs	180 00	
Bath house	34 17	
Skating pavilion	8 07	
Barn	7 36	
Greenhouse	7 20	
Ice house	17 42	
Buildings, generally	814 48	$ 1,068 70
Total Belle Isle Maintenance		$ 83,824 61

BELLE ISLE IMPROVEMENTS

Roads and walks	$ 4,200 00	
Animals	1,146 86	
Settees	319 24	
Picnic tables	82 83	
Flag	405 29	
Rip rap	334 73	
Horticultural grounds	1,500 00	
Stock conservatory	659 62	
Gates	286 21	
Sewer	255 47	
Bridge, No. 15	391 95	
Fountains	997 39	
Athletic field	224 33	
Ice house	960 00	
Wagon shed	104 82	
Forge	119 13	
New Casino	56,073 41	
Total Belle Isle Improvements		$ 68,061 73

PALMER PARK MAINTENANCE

General Maintenance	$ 6,241 19
Roads	116 82
Trees	21 00
Flower beds	271 16
Buildings	131 20
Fuel	256 19

Arboretum	52 72	
Cutting ice	72 77	$ 7,163 05
Bath room	150 00	
Dock	75 00	
Picnic pavilion counter	75 00	
Matting	55 00	
Resurfacing roads	1,972 77	
Log Cabin	100 00	$ 2,427 77
Total Palmer Maintenance		$ 9,590 82

PALMER PARK IMPROVEMENTS

General Improvements	$ 1,216 26	
Waiting room	1,020 00	
Water system	284 80	
Sewer	3 47	
Big log	1,000 00	
Total Palmer Improvements		$ 3,524 53

CLARK PARK MAINTENANCE

General maintenance	$ 3,807 84	
Trees	318 60	
Total Clark Park Maintenance		$ 4,126 44

CLARK PARK IMPROVEMENTS

Improvements	$ 1,662 31		
Trees	79 31	$ 1,741 62	
Shelter		5,000 00	
Total Clark Park Improvements			$ 6,741 62

CITY PARKS MAINTENANCE

General maintenance	$ 4,571 27		
Trees	94 49		
Water system	7 75		
Flower beds	1,165 29	$ 5,838 80	
Caretakers		5,595 65	
Convenience station		2,673 66	
Total City Parks Maintenance			$ 14,108 11

CITY PARKS IMPROVEMENTS

Improvements	Owen	$ 822 85	
"	Perrien	146 13	
"	Grand Circus, general	374 88	
"	Walk, East Grand Circus	1,684 00	
"	" West " "	1,709 00	
"	Macomb	64 09	
"	Harmonie	50 00	
"	Campau	52 84	
"	West	28 26	
"	Clinton	47 36	
"	Capitol	69 51	
"	Recreation	163 57	
"	Medbury	105 66	
"	Voigt	1.152 92	
"	Elton	46 50	
"	Crawford	34 25	
"	Boston, east	22 95	
"	Boston, west	404 94	
"	Opera House lawn	17 65	
"	Atkinson	87 25	
"	Parker	28 47	
"	Convenience station	15,049 11	
"	Grounds at convenience station.	101 73	
"	Scripps	24 21	
"	City parks, generally	668 63	
Total City Park Improvements			$ 22,956 76

GRAND BOULEVARD MAINTENANCE

General maintenance	$ 6,592 55		
Road sprinkling	2,097 00		
Lawns	65 36		
Flower beds	489 49		
Trees and shrubs	753 21		
Water system	87 11	$ 10,084 72	
Caretakers		5,000 40	
Patrol		1,460 57	
Dequindre bridge		112 60	
Total Grand Boulevard Maintenance			$ 16,658 29

GRAND BOULEVARD IMPROVEMENTS

Sprinkling system	$ 175 00	
Trees and shrubs	250 00	
Farmont Park	252 38	
Walk and alley crossings	100 27	
Sidewalks	8 96	
Re-surfacing Roads	3,810 20	
Gates	141 95	
Road intersections	895 04	
East roadway	1,844 69	
Total Grand Boulevard Improvements		$ 7,478 49

SUBWAY ACCOUNT

BOND ISSUE

Inspection	$ 192 00	
Engineer	42 75	
Vinewood to R. R.	825 08	
Vinewood to Buchanan	294 70	$ 1,354 53

PAVING ACCOUNT

BOND ISSUE

Engineer and inspector	$ 2,022 25	
St. Aubin to Chene	8,904 41	
Mack to Gratiot	13,327 04	
Lafayette Grand Boulevard to Scotten	13,516 81	
Cobble curb, Mack to Gratiot	1,615 67	
Tiling Lafayette Grand Boulevard to Scotten	54 24	
Chene street intersection	1,707 68	
Hancock to Holden	13,157 75	$ 54,305 85
Total Grand Boulevard Improvements		$ 63,138 87

LAFAYETTE BOULEVARD MAINTENANCE

General maintenance	$ 621 70		
Caretakers	2,993 80		
Patrol	1,494 87	$ 5,110 37	
Lafayette bridge repairs	5,870 19		
Lafayette bridge, paint	221 04	$ 6,091 23	
Roadway		621 72	
Total Lafayette Maintenance			$ 11,823 32

LAFAYETTE BOULEVARD IMPROVEMENTS

General improvements	$ 73 44	
Sidewalks	55 46	
Walk and alley crossings	500 00	
Vermont intersection	408 95	
Total Lafayette Boulevard Improvements		$ 1,037 85

RECAPITULATION

General maintenance and improvements	$ 63,079 90	$ 8,646 89
Belle Isle " "	83,824 61	68,061 73
Palmer " "	9,590 82	3,524 53
Clark " "	4,126 44	6,741 62
City parks " "	14,108 11	22,956 76
Grand Boulevard "	16,658 29	63,138 87
Lafayette Boulevard "	11,823 32	1,037 85
	$203,211 49	$174,108 25
Maintenance		203,211 49
Total Expenditures		$377,319 74
Cash Balance, June 30, 1907		199,409 05
Grand Total		$576,728 79

PARK AND BOULEVARD SYSTEM

Bonds Issued and Estimates Asked and Allowed

Total bonds issued for Belle Isle park	$1,015,000 00
" " " " City parks	81,000 00
" " " " Grand Boulevard	1,330,000 00
Total	$2,426,000 00

Estimates Under Acts of May 8, 1899, and May 4, 1901

	ASKED	ALLOWED
1889	$ 231,000 00	$ 101,229 00
1890	181,000 00	72,400 00
1891	131,500 00	74,550 00
1892	133,650 00	100,000 00
1893	206,430 00	100,000 00

Estimates Under Acts of May 8, 1899, and May 4, 1901

(Continued)

	ASKED	ALLOWED
1894	359,954 00	168,200 00
1895	179,500 00	147,250 00
1896	169,250 00	137,150 00
1897	207,850 00	134,640 00
1898	164,760 00	113,640 00
1899	210,926 00	140,117 00
1900	428,661 00	173,502 00
1901	454,893 00	161,265 00
1902	272,169 00	198,913 00
1903	368,170 00	227,363 00
1904	486,517 00	240,841 00
1905	566,776 00	241,516 00
1906	517,881 00	232,106 00
1907	678,270 00	335,627 00
	$5,949,157 00	$3,100,309 00

PRINCIPAL IMPROVEMENTS

Lakes.

Lake Takoma, Belle Isle park, 1887		$21,981 75	
" " " " " deepened,	1892	5,444 55	
" " " " " "	1900	7,019 43	
" " " " " "	1901	4,000 00	$38,445 73
Lake Okonoka, Belle Isle park, 1888-9			58,658 73
" Muskoday " " " 1893			45,055 99
Lily pond, " " " 1890			2,990 15
Zoo lake (concreting) 1904			1,200 00

Canals.

Loop Canal, Belle Isle park, 1883		$11,182 00	
" " " " " deepened.	1901	2,500 00	
" " " " " "	1902	2,500 00	18,682 00
Nashua " " " " 1890			37,741 97

Water Mains.

Water mains, Belle Isle park, 1894-5-6	$29,623 52

Docks.

Sheltered ferry dock, Belle Isle park, 1894....	12,520 65

Bridges.

Stone bridge No. 1—Over north inlet to Loop canal, on Pleasure place, Belle Isle, 1894....	$5,438 25
Steel bridge No. 2—Over Loop canal, near Muir fountain, Belle Isle, 1892.....	5,962 53
Stone bridge No. 3—Over Marsh Run, on Muse road, Belle Isle, 1894.....	8,205 80
Wooden bridge No. 4—Over Lily pond, built in 1901	206 00
Stone bridge No. 5—(foot); over Marsh Run, Belle Isle, 1894	1,400 00
Steel bridge No. 6—Over Loop canal, on Central avenue, Belle Isle, 1892.....	14,301 43
Stone bridge No. 7—Over Loop canal, south of bridge No. 6, Belle Isle, 1892-3.....	5,852 72
Stone bridge No. 8—Over outlet at S. W. corner of Belle Isle, 1894.....	5,462 34
Stone bridge No. 9—(foot); over outlet to Lake Takoma, Belle Isle, 1894-9.....	1,732 61
Stone bridge No. 10—Over canal at head of Lake Takoma, built in 1900-1-2.....	6,962 52
Brick and stone bridge No. 11—Over inlet to Lake Takoma, built in 1901-2.....	3,600 00
Stone bridge No. 12—Over south inlet to Nashua canal, built in 1900-1-2.....	3,577 79
Stone bridge No. 13—Over Nashua canal east of Belle Isle barns, built in 1903.....	5,500 00
Steel bridge No. 14—Over Nashua canal, at athletic shelter, Belle Isle, 1899-1900.....	4,538 35
Cement bridge No. 15—Over Nashua canal on Hermit's Pass, built in 1906.....	391 95
Stone bridge No. 16—Over inlet to Nashua canal on Woodside drive, built in 1903.....	3,500 00
Wooden bridge No. 17—Over S. E. inlet to Lake Okonoka on Lakeside drive, abandoned in 1900 and inlet filled up.....	———

Stone and steel bridge No. 18—Over east inlet to Lake Okonoka on Lakeside drive, built in 1902-3	5,500 00
Stone bridge No. 19—Over south inlet to Lake Muskoday, Belle Isle, 1894	4,578 47
Stone bridge No. 20—Over north inlet to Lake Muskoday, Belle Isle, 1894	3,999 62
Stone bridge No. 21—Over outlet to Lake Muskoday, 1894	3,559 77
Wooden bridge No. 22—Was built many years ago and is now worthless	———
Stone bridge in Clark park, 1893	609 60
Subway, Milan arch, boulevard, 1895-9	44,786 61

Buildings.

Aquarium and horticultural building and equipment, 1900-1-2-3-4-5	163,567 15
Animal shelter, 1903-4	11,384 78
Athletic pavilion, Belle Isle, 1899	12,828 72
Casino, Belle Isle, 1886-7-8	19,066 45
Casino, New, Belle Isle, 1905-6	74,665 39
Boathouse Belle Isle, 1887	5,587 28
Engine house, pavilion and earth closets, Belle Isle, 1887, engine house abandoned 1896	5,966 84
Greenhouse, Belle Isle, 1899, 1900-1-2-4	17,794 45
Ice house, 1900-1-5	6,892 11
Implement and wagon shed, 1902-3-4	9,895 18
Music pavilion, Belle Isle, 1902	2,500 00
Bathhouse Belle Isle, 1894	16,179 88
Horse shelter (old market building), Belle Isle, 1894	3,110 06
Skating pavilion, Belle Isle, 1893-4	8,415 40
Brick barn, Belle Isle, 1895	12,053 21
Women's toilet (brick) Belle Isle, 1895	1,085 49
Women's toilet (stone) Belle Isle, 1896	2,208 56
Women's toilet (brick) Belle Isle, 1904	2,500 00
Wolf inclosure, 1903-4	1,790 00
Picnic pavilion, near Yacht Club, Belle Isle, 1890	1,635 72
Police station (park board's share) Belle Isle, 1892	2,000 00

Women's toilet, Clark park, 1893	4,205 59
Men's toilet, Clark park, 1899-1900	2,295 00
Open pavilion, Clark park, 1895	1,675 00
Shelter pavilion, Clark park, 1906	5,000 00
Picnic pavilion, Palmer park, 1895	1,167 53
Casino, Palmer park, 1896-1899	11,799 73
Women's toilet, Palmer park, 1902-3	1,999 98
Men's toilet, Palmer park	2,000 00
Log waiting room, Palmer park, 1900-6	2,232 07
Convenience, Cadillac park, 1906	16,800 00

Miscellaneous.

Bear den, Belle Isle, 1895-6	3,272 40
Animal cages and fences, Belle Isle, 1896-9, 1900-1	8,821 82
Fountain, Capitol park, 1896	2,351 83
Fountain, Stanton park, 1896	670 00
Horse drinking troughs, Grand Boulevard, 1896	1,606 38
Dock, foot of Western Grand Boulevard, 1903	10,883 07

MISCELLANEOUS INFORMATION TO ANSWER THE MANY INQUIRIES MADE

City population, 375,000.

City acreage, 23,040.

Park and boulevard acreage, 1,195.067.

Parks and boulevard valuation, $10,387,900.00.

Belle Isle park is 2 miles long.

" " " has 5½ miles shore drive.

" " " has 14½ miles of driveway.

" " " has 5 1-10 miles gravel walks.

" " " flag staff is 146.86 feet in height.

" " " flag is 30 x 50 feet.

Belle Isle bridge is ½ mile long less 8 feet.

" " zoo grounds contain 15 acres.

Park and boulevard system has 15½ miles of gravel walk.

" " " " has 38.1 miles of roadway.

Macadam	road,	Belle Isle	221,173	square	yards.
"	"	Palmer park	17,566	"	"
"	"	Clark "	11,366	"	"
"	"	Grand Boulevard	352,007	"	"
Brick	"	" "	3,494	"	"
Asphalt	"	Lafayette "	27,401	"	"
Cedar block	"	" "	20,232	"	"

Area of Lakes

Lake	Takoma,	Belle Isle park,	15.30	acres.
"	Muskoday,	" " "	34.23	"
"	Okonoka,	" " "	22.56	"
"	Higinio,	Palmer Park,	4.58	"
"	Frances,			
Clark park lake			.66	"

PARK AND BOULEVARD SYSTEM

NAMES.	LOCATIONS.	ACREAGE.
Adelaide Campau	Campau, Mullett and Clinton sts	1.199
Atkinson	34th, Wesson, Devereaux and McGraw	13.470
Belle Isle	Island in the Detroit river	707.000
Boston parkway	Boston boulevard east and west	5.734
Cadillac	Cadillac sq., Campus Martius to Randolph	.970
Capitol	Griswold, State and Rowland sts	.510
Cass	Second ave., Ledyard and Bagg sts	4.966
Chicago parkway	Chicago boulevard, east and west	5.008
City Hall	Woodward ave., Fort and Michigan	.550
Clark	Dix, Scotten, Lafayette and Clark aves	31.601
Clinton	St. Antoine, Mullett and Raynor sts	1.068
Crawford	Fifth and West High sts	.746
Elton	Fifth and Orchard sts	.740
Grand Circus	Woodward, Adams, Park and Witherell	5.566
Harmonie	Randolph, Center and North sts	.448
Macomb	17th, 18th and Rose sts	.557
Medbury	Medbury ave., John R. to Rivard sts	3.440
Opera House	Woodward and Monroe aves	.174
Owen	Jefferson ave. and river	6.990
Palmer	Woodward ave	140.410
Parker parkway	Parker ave. north of Jefferson ave	.373
Perrien	Chene, Grandy, Hancock and Warren aves	5.180
Recreation	Brush, Brady to Alexandrine ave	1.290
Scripps	Grand River, Trumbull and Commonwealth	1.333
Second avenue parkway	Second ave. bet. Colburn pl. & R. R.	1.110
Stanton	17th, 18th and Porter sts	.695
Voigt	Edison and Longfellow aves	6.795
West	State and Park place	.744
Washington	Washington, Michigan to Park sts	2.862
Grand boulevard		220.768
Lafayette boulevard		22.770
Total 29 parks and the boulevard		1,195.067
Grand boulevard mileage		11.62
Lafayette boulevard mileage		2.36
Total boulevard mileage		13.98

TAL
75
98
36
29
45
46
74
14
65
15
69
58
53
00
12
98
93
36
99
38
83
21
08
24
04
50
27
01
88
86
95
23
02
68
48
19
89
23
38
04
91
71
29
41
39
84
26
21
51
01
08
83
74
23